



American Welding Society®

# 2023 AWS NATIONAL AWARDS

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# 2023 AWS NATIONAL AWARD RECOGNITION CEREMONY

The AWS Awards Recognition Ceremony of the American Welding Society serves an important function. It recognizes the men and women in the industrial, education, and research communities who have made distinctive contributions to advance the science, technology, and application of welding and allied processes, including joining, brazing, soldering, cutting and thermal spraying. This booklet describes the various awards, listing recipients for the past twenty-five years along with a brief biography of this year's recipients. A complete listing of awards and their recipients may be obtained from the AWS website at [aws.org](https://aws.org).





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# AWS NATIONAL AWARD WINNERS

## COMFORT A. ADAMS LECTURE AWARD

The American Welding Society sponsors this lectureship, which was created in memory of Dr. Comfort A. Adams, its founder and first President. The award is presented to an outstanding scientist or engineer for a lecture describing a new or distinctive development in the field of welding. The lecture is presented during the AWS Welding Show and Convention.

### *Recipient of Award:*

Key, J. F. (1990)

Peaslee, R. L. (1991)

Eagar, T. W. (1992)

David, S. A. (1993)

Baeslack III, W. A. (1994)

Gooch, T. G. (1995)

Kotecki, D. J. (1996)

Lippold, J. C. (1997)

Edwards, G. R. (1998)

Smartt, H. B. (1999)

DebRoy, T. (2000)

Evans, G. M. (2001)

Cieslak, M. J. (2002)

Matsunawa, A. (2003)

Bhadeshia, H. K. D. H. (2004)

Matsuda, F. (2005)

Vitek, J. M. (2006)

Elmer, J. W. (2007)

Liu, S. (2008)

Thomas, W. (2009)

Cerjak, H. (2010)

Grong, O. (2011)

Kou, S. (2012)

DuPont, J. N. (2013)

Goldak, J. (2014)

Robino, C. V. (2015)

Vianco, P.T. (2016)

Babu, S. S. (2017)

Nishimoto, K. (2018)

Dong, P. (2019)

*No presentation (2020)*

Cross, C. E. (2021)

Koseki, T. (2022)

### “INTELLIGENT GMAW, PROCESS DEVELOPMENTS, APPLICATION AND CONTROL”



**PROFESSOR JOHN NORRISH** is Emeritus Professor of Welding at the University of Wollongong, Australia. He initially graduated with a metallurgy degree in the UK, followed by a post graduate degree in welding technology. He has more than 50 years involvement with welding technology in industry and academic research. He worked in R&D for BOC in the UK, and as a welding engineer for CIG in Australia.

He led the welding group at Cranfield University in the UK, before taking up the Chair in Welding and Joining at Wollongong University in 1995. He has a special interest in arc welding process control, metal transfer phenomena, welding automation and additive manufacturing. He has been a member of AWS for 33 years and was made a fellow in 2018. He is a Chartered Engineer, Fellow of TWI, Honorary Fellow of IIW and founding director and fellow of the Defense Materials Technology Centre (DMTC) in Australia. John has more than two hundred publications in international journals and is also the author of a book – ‘Advanced Welding Processes.’ Although formally retired from UOW in 2012 he became an Emeritus Professor and continues to be involved in research activities of the facility for intelligent fabrication (FIF).



# AWS NATIONAL AWARD WINNERS

## ADAMS MEMORIAL MEMBERSHIP AWARD

This award is sponsored by the American Welding Society and recognizes educators for outstanding teaching activities in their undergraduate and postgraduate engineering institutions.

### *Recipient of Award:*

- |                                   |                            |                        |
|-----------------------------------|----------------------------|------------------------|
| Hardt, D. E. (1989)               | Dilthey, U. (1996)         | Mazumder, J. (2007)    |
| Matlock, D. K. (1989)             | Murray, D. H. (1996)       | Wei, P-S (2008)        |
| Dickinson, D. W. (1990)           | Kovacevic, R. (1997)       | Cerjak, H. (2009)      |
| Jacobi, M. (1990)                 | Lippold, J. C. (1997)      | Tsai, H-L (2010)       |
| Aidun, D. K. (1991)               | Morgan, D. W. (1997)       | Chin, B. A. (2011)     |
| Kerr, H. (1991)                   | Walsh, D. (1997)           | Babu, S. S. (2012)     |
| North, T. H. (1991)               | Farson, D. F. (1998)       | Warke, R. W. (2013)    |
| Benatar, A. (1992)                | Adonyi, Y. (1999)          | Mendez, P. F. (2014)   |
| DebRoy, T. (1992)                 | Acoff, V. L. (2000)        | Palmer, T. A. (2015)   |
| Mikols, J. S. (1992)              | Bracarense, A. Q. (2001)   | Zhang, W. (2016)       |
| Sheppard, S. D. (1992)            | Indacochea, J. E. (2001)   | Phillips, D. H. (2017) |
| Cook, G. E. (1993)                | DuPont, J. N. (2002)       | Zhou, Y. N. (2018)     |
| Guedes de<br>Alcantara, N. (1993) | Cross, C. E. (2003)        | Alexandrov, B. (2019)  |
| Messler, Jr., R. W. (1993)        | Gale, W. F. (2004)         | Gerlich, A. (2019)     |
| Papritan, J. C. (1993)            | Nelson, T. W. (2004)       | Hardesty, J. B. (2020) |
| Kuk, K. A. (1994)                 | Zhang, Y. (2005)           | Miles, M. (2021)       |
| Quintino, L. (1994)               | Li, Leijun (2006)          | Andersson, J. (2022)   |
| Patchett, B. M. (1995)            | Merzthal, J. T. (2006)     |                        |
|                                   | Bhadeshia, H.K.D.H. (2007) |                        |



**PROFESSOR R. BRUCE MADIGAN** earned certificates in manual welding from the Hobart School of Welding Technology (1979), BS and MS degrees in Welding Engineering from The Ohio State University (1983,1985) and a PhD in Metallurgical and Materials Engineering from Colorado School of Mines (1994). He has held welding-related positions at Edison Welding Institute, National Institute of Standards and Technology, and Montana Technological University. In his career, Bruce has focused primarily on research, development, and application of welding processes. His other interests include process control and modeling, additive manufacturing, welding metallurgy, non-destructive evaluation, and curriculum development. Dr. Madigan is credited with numerous publications, presentations, and patents. Bruce has been an active member of AWS since 1983. Since recently retiring from academia, he continues consulting for welding and related manufacturing operations via Gray Beards Engineering, LLC.



# AWS NATIONAL AWARD WINNERS

## HOWARD E. ADKINS MEMORIAL INSTRUCTOR MEMBERSHIP AWARD

This award is sponsored by the Adkins family and recognizes instructors for their outstanding teaching accomplishments at the high school, trade school, technical institute, and community college level.

### *Recipient of Award:*

Bailey, D. H. (1989)  
Lanier, R. C. (1989)  
Arneson, D. (1990)  
Leppiaho, E. A. (1990)  
Edge, R. C. (1991)  
Foley, J. (1991)  
Gaylen, J. D. (1992)  
Kimbrell, G. (1992)  
Heinrich, V. E. (1993)  
Shopper, A. L. (1993)  
Henderson, E. P. (1994)  
Walker, D. L. (1994)  
Geesey, J. L. (1995)  
Jackson, H. L. (1995)  
Rowe, R. J. (1996)  
Shreve, W. L. (1996)  
Massey, H. L. (1997)  
Wallerich, G. (1997)  
Ciaramitaro, J. A. (1998)  
Woods, J. (1998)

Heinrich, V. E. (1999)  
Smith, F. D. (1999)  
Miller, Jr., W. P. (2000)  
Fasting, J. L. (2001)  
Vann, M. J. (2001)  
Kimbrell, P. D. (2002)  
Odom, J. C. (2002)  
Galvery, Jr., W. L. (2003)  
Johnston, K. D. (2003)  
Benton, W. S. (2004)  
Rayborn, Jr., D. (2004)  
Kee, Jimmy (2005)  
Sullivan, J. H. (2005)  
Norman, Ed. (2006)  
Western, J. W. (2006)  
Mueller, B. O. (2007)  
Theiss, R. S. (2007)  
Harris, W. L. (2008)  
Lange, D. H. (2008)  
Main, D. K. (2009)

Carney, J. N. (2010)  
Gammill, G. L. (2010)  
Hutchison, R. J. (2011)  
Gill, T. L. (2012)  
Sutherland, S. H. (2012)  
Siepert, G. (2013)  
Polanin, W. R. (2014)  
Mitchell, J. L. (2015)  
Smith, S. C. (2016)  
Otto, B. (2016)  
Hughes, H. (2017)  
King, J. L. (2017)  
Sumal, A. A. S. (2018)  
Vann, R. L. (2018)  
Knapp, J. (2019)  
*No presentation* (2020)  
*No presentation* (2021)  
Emery, R. (2022)

**2023 RECIPIENT: ROY R. JONES**





# AWS NATIONAL AWARD WINNERS

## KENNETH L. BROWN MEMORIAL SAFETY AND HEALTH AWARD

This award is sponsored by the American Welding Society to recognize individuals for promoting welding safety and health through research, educational activities, development of safe practices, or dissemination of information through publications or other means, thereby fostering public safety awareness and welfare.

*Recipient of Award:*

Spies, G. R. (1992)  
Fisher, O. J. (1993)  
McMillan, G. H. G. (1994)  
Lesnewich, A. (1995)  
Manz, A. F. (1996)  
Sliney, D. H. (1997)  
Hinrichs, J. F. (1998)  
Brown, K. L. (2000)  
Rockwell, Jr., R. J. (2001)  
Lyttle, K. A. (2002)

DeLong, W. T. (2004)  
Castner, H. R. (2005)  
Antonini, J. (2006)  
*No presentation* (2007)  
Fiore, S. R. (2008)  
*No presentation* (2009)  
*No presentation* (2010)  
Palmer, W. (2011)  
Fink, D. A. (2012)  
*No presentation* (2013)

Costa, L. (2014)  
*No presentation* (2015)  
*No presentation* (2016)  
*No presentation* (2017)  
Clark, D. (2018)  
*No presentation* (2019)  
*No presentation* (2020)  
*No presentation* (2021)  
Petkovsek, J. (2022)

*No presentation this year*



# AWS NATIONAL AWARD WINNERS

## ROBERT J. CONKLING MEMORIAL AWARD

This award is named in memory of Robert J. Conkling. He encouraged young people to enter the welding industry and contributed generously of his time and talents to the development of the AWS Welding Show and Convention.

This award is sponsored by the American Welding Society and is presented to the schools that trained the two first-place winners in the national SkillsUSA welding competition.

### 2023 SkillsUSA Championships Gold Medalists Schools

#### *First Place – High School*

Mapleton Mountain High School

Spanish Fork, Utah

#### *First Place – Post Secondary*

Utah State University Eastern

Price, Utah



# AWS NATIONAL AWARD WINNERS

## 2022 PAPER | A. F. DAVIS SILVER MEDAL AWARD

This award is endowed by the late A. F. Davis, former Vice President, and Secretary of The Lincoln Electric Company. It is awarded to the authors of papers published in the Welding Journal during the previous calendar year that represent the best contributions to the progress of welding in the categories of 1) Machine Design, 2) Maintenance and Surfacing, and 3) Structural Design.

NOTE: Code number after each name designates category in which award was won:

- (1) Machine Design
- (2) Maintenance and Surfacing
- (3) Structure Design

As of 2023 and update to the following categories was implemented:

- (1) Design of Welding Processes, machines, and equipment
- (2) Maintenance, Repair and Surfacing
- (3) Design of welded structures and equipment
- (4) Designs that improve skills development, education, and training

*Recipient of Award:*

Marsh, C. (3) (1989)  
Stol, I. (1) (1990)  
McGough, M. (2) (1990)  
Denys, R. M. (3) (1990)  
Guu, A. C. S. (1) (1991)  
Rokhlin, S. I. (1) (1991)  
Chen, S-J (2) (1991)  
Devletian, J. H. (2) (1991)  
Oh, Y. K. (2) (1991)  
Leggatt, R. H. (2) (1992)  
Bentley, A. E. (1) (1993)  
Marburger, S. (1) (1993)  
Gittos, M. (2) (1993)  
Gooch, T. G. (2) (1993)  
Wang, P. C. (3) (1993)  
Einerson, C. J. (1) (1994)  
Smartt, H. B. (1) (1994)  
Miller, E. G. (3) (1994)  
Nagel, G. (3) (1994)  
Rybicki, E. F. (3) (1994)  
Stonesifer, R. B. (3) (1994)  
Bucknall, P. W. (1) (1995)  
Richardson, I. M. (1) (1995)  
Stares, I. (1) (1995)  
Lafave, R. A. (2) (1995)  
Wiegand, R. C. (2) (1995)  
Ewing, K-M W. (3) (1995)

Wang, P. C. (3) (1995)  
Kimchi, M. (1) (1996)  
Westgate, S. A. (1) (1996)  
Kotecki, D. J. (2) (1996)  
Ogborn, J. S. (2) (1996)  
Boomer, D. R. (1) (1997)  
Hao, M. (1) (1997)  
Newton, C. J. (1) (1997)  
Osman, K. A. (1) (1997)  
Graham, M. (3) (1997)  
Hirak, D. M. (3) (1997)  
Kerr, H. W. (3) (1997)  
Weckman, D. C. (3) (1997)  
Li, P. (1) (1998)  
Wang, Q. L. (1) (1998)  
Hong, J. H. (2) (1998)  
Tsai, C. L. (2) (1998)  
Yao, P. (2) (1998)  
Barber, J. R. (3) (1998)  
Fang, C-K (3) (1998)  
Kannatey-Asibu, Jr.,  
E. (3) (1998)  
Feng, Z. (2) (1999)  
Jirinec, M. J. (2) (1999)  
Keiser, J. R. (2) (1999)  
Swindeman, R. W. (2) (1999)  
Taljat, B. (2) (1999)

Wang, X-L (2) (1999)  
Zacharia, T. (2) (1999)  
McCauley, R. B. (3)  
(1999-posthumous)  
Tsai, C. L. (3) (1999)  
Tsai, M. J. (3) (1999)  
Blachowiak, E. G. (1) (2000)  
McCowan, C. N. (1) (2000)  
Madigan, R. B. (1) (2000)  
Quinn, T. P. (1) (2000)  
Smith, C. (1) (2000)  
Weaver, M. A. (3) (2000)  
Li, P. (1) (2001)  
Zhang, Y. (1) (2001)  
Balmforth, M. C. (2) (2001)  
Lippold, J. C. (2) (2001)  
Dupont, J. N. (3) (2001)  
Marder, A. R. (3) (2001)  
Nawrocki, J. G. (3) (2001)  
Robino, C. V. (3) (2001)  
Elmer, J. W. (1) (2002)  
Teruya, A. T. (1) (2002)  
Banovic, S. W. (2) (2002)  
Dupont, J. N. (2) (2002)  
Marder, A. R. (2) (2002)  
Cho, Y-J (1) (2003)  
Rhee, S. (1) (2003)



# AWS NATIONAL AWARD WINNERS

## 2022 PAPER | A. F. DAVIS SILVER MEDAL AWARD *(cont.)*

Menon, R. (2) (2003)	Korinko, P. S. (2) (2012)	Zhang, K. (1) (2018)
Cook, G. E. (1) (2004)	Adams, T. M. (2) (2012)	Zhang, Y. (1) (2018)
Crawford, R. (1) (2004)	Malene, S. H. (2) (2012)	Gao, Y. H. (2) (2018)
Mitchell, J. E. (1) (2004)	Gill, S. C. D. (2) (2012)	Liu, Z. X. (2) (2018)
Smartt, H. B. (1) (2004)	Smugeresky, J. (2) (2012)	Lu, L. (2) (2018)
Srauss, A. M. (1) (2004)	Fan, Y. (1) (2013)	Wang, P. C. (2) (2018)
Kang, S. W. (3) (2004)	Yang, C. (1) (2013)	Zhi, Q. (2) (2018)
Kim, W. S. (3) (2004)	Lin, S. (1) (2013)	Frostevarg, J. (1) (2019)
Bruce, W. A. (2) (2005)	Fan, C. (1) (2013)	Kaplan, A. (1) (2019)
Beckett A. S. (2) (2005)	Liu, W. (1) (2013)	Näsström, J. (1) (2019)
Kusko, C. S. (3) (2005)	Zhou, Y. (2) (2013)	Anderson, N. (2) (2019)
DuPont, J. N. (3) (2005)	Yang, Y. L. (2) (2013)	Kannan, R. (2) (2019)
Marder, A. R. (3) (2005)	Li, D. (2) (2013)	Li, L. (2) (2019)
Kang, S. K. (1) (2006)	Yang, J. (2) (2013)	Liu, D. (2) (2019)
Na, S-J (1) (2006)	Jiang, Y. W. (2) (2013)	Long, W. (2) (2019)
Lassen, T. (3) (2006)	Ren, X. J. (2) (2013)	Wei, P. (2) (2019)
Darcis, P. (3) (2006)	Yang, Q. X. (2) (2013)	Wu, M. (2) (2019)
Recho, N. (3) (2006)	Radakovic, D. J. (3) (2013)	Aidun, D. (3) (2019)
Choi, H. W. (1) (2007)	Tumuluru, M. (3) (2013)	Bunn, J. R. (3) (2019)
Farson, D. F. (1) (2007)	Xiao, J. (1) (2014)	Cornwell, P. (3) (2019)
Cho, M. H. (1) (2007)	Zhang, G. (1) (2014)	Eisazadeh, H. (3) (2019)
Palmer, T. A. (2) (2007)	Wu, L. (1) (2014)	Payzant, E. A. (3) (2019)
Elmer, J. W. (2) (2007)	Chen, S. (1) (2014)	Feng, J. (1) (2020)
Brasher, D. G. (2) (2007)	Zhang, Y. (1) (2014)	Sun, Q. (1) (2020)
Butler, D. J. (2) (2007)	Aschemeier, U. (2) (2014)	Teng, J. (1) (2020)
Riddle, R. (2) (2007)	Peters, K. (2) (2014)	Wang, J. (1) (2020)
Tsai, C. L. (3) (2007)	Zhang, Y (1) (2015)	Duch, J. (2) (2020)
Dickinson, D. W. (3) (2007)	Shao, Y (1) (2015)	DuPont, J. N. (2) (2020)
Kim, C-Y (3) (2007)	Ramirez, J. E. (2) (2015)	Brochu, M. (3) (2020)
Garnett, M. D. (3) (2007)	Sigler, D. R. (3) (2015)	Chekir, N. (3) (2020)
Palmer, T. A. (1) (2008)	Vanimisetti, S. K. (3) (2015)	Sixsmith, JJ. (3) (2020)
Elmer, J. W. (1) (2008)	Liu, D. S. (2) (2016)	Tollett, R. (3) (2020)
Nicklas, K. D. (1) (2008)	Wei, P. (2) (2016)	Carlson, B. E. (1) (2021)
Mustaleski, Jr., T. M. (1) (2008)	Chen, S. J. (1) (2017)	Haselhuhn, A. (1) (2021)
Tosten, M. H. (2) (2008)	Xiao, J. (1) (2017)	Hu, S. (1) (2021)
West, S. L. (2) (2008)	Zhang, G. (1) (2017)	Li, Y. (1) (2021)
Kanne, Jr., W. R. (2) (2008)	Zhang, Y. (1) (2017)	Lin, Z. (1) (2021)
Cross, B. J. (2) (2008)	Chai, X. (2) (2017)	Ma, Y. (1) (2021)
Banovic, S. W. (3) (2008)	Kou, S. (2) (2017)	Han, Y. (2) (2021)
Siewert, T. A. (3) (2008)	Landwehr, D. (2) (2017)	Jia, C. (2) (2021)
Li, K. (1) (2009)	Yu, P. (2) (2017)	Wu, CS. (2) (2021)
Zhang, Y-M (1) (2009)	Achuthan, A. (3) (2017)	Wu, J. (2) (2021)
Malin, V. (2) (2009)	Aidun, D. K. (3) (2017)	Yang, Q. (2) (2021)
Sciammarella, F. (2) (2009)	Bunn, J. R. (3) (2017)	Zhang, Y. (2) (2021)
Huang, Y. (1) (2011)	Coules, H. E. (3) (2017)	Bunn, J. (3) (2021)
Zhang, Y. (1) (2011)	Eisazadeh, H. (3) (2017)	Feng, Z. (3) (2021)
Pargeter, R. J. (2) (2011)	Goldak, J. A. (3) (2017)	Kolbus, L. (3) (2021)
Wright, M. D. (2) (2011)	Chen, J. (1) (2018)	Liu, S. (3) (2021)
	Wu, S. (1) (2018)	Wang, Z. (3) (2021)



# AWS NATIONAL AWARD WINNERS

Wu, X. (3) (2021)

Yu, Z. (3) (2021)

Assuncao, H. L. (1) (2022)

Bracarense, A.Q. (1) (2022)

Pereira Pessoa,

E. C. (1) (2022)

Rizzo, F. (1) (2022)

Rocha dos

Santos, V. (1) (2022)

Gould, J. E. (1) (2022)

Lester, P. (1) (2022)

Lindamood, L. (1) (2022)

Malpica, J. (1) (2022)

Marinho, R. R. () (2022)

Carlson, B. E. (3) (2022)

Chen, J. (3) (2022)

Feng, Z. (3) (2022)

Huang, H. (3) (2022)

Wang, H-P. (3) (2022)



# AWS NATIONAL AWARD WINNERS

## DESIGN OF WELDING PROCESSES, MACHINES, AND EQUIPMENT (I)

### “HETEROGENEOUS MEASUREMENT SYSTEM FOR DATA MINING ROBOTIC GMAW WELD QUALITY”



**DR. ADEWOLE A. AYOADE** While pursuing his Bachelor’s degree in Electrical and Electronics Engineering at the Federal University of Technology Akure, Nigeria, I got my first peek into intelligent machines during a six-month internship in 2008, developing embedded systems for a research lab at the Obafemi Awolowo University, Ile-Ife Nigeria. In January 2013, I began my research career in robotics and intelligent systems at the Colorado School of Mines, Golden, Colorado where I obtained a Master’s in Electrical Engineering. Under the tutelage of Prof. John Steele, I spent two years developing an autonomous mobile robot for enabling oil and gas processes, but I became fascinated by the complexity of the welding process. So, for another four and a half years, I investigated the use of machine learning algorithms to improve weld quality predictions and diagnostics for robotic welding at Mines and Wolf Robotics. In August 2019, I received a Ph.D. in Electrical Engineering with a specialty in robotics and intelligent systems. Since then, I have continued in my passion for welding as a Software Developer in the Research and Development group at Lincoln Electric, Cleveland, Ohio, translating my knowledge into software solutions for next-generation intelligent welding robots.



**DR. JOHN P. H. STEELE** I was accepted as an apprentice into Local 367 of United the Association of Plumbers and Pipefitters in Anchorage Alaska in 1973 and the first time I saw my welder strike an arch and melt steel, I was hooked. I learned to weld and especially liked TIG (aka GTAW) and love welding stainless steel. After I turned out and had worked lots of industrial jobs, I decided to go back to school. I enrolled in Mechanical Engineering at the University of New Mexico and got a Master’s in Mechanical Engineering with a specialty in Tribology. But I was smitten by the robot bug and stayed to do a PhD in robotics with a specialty in mobile robots. I spent some time designing robots for clean rooms and then moved to Colorado to take a faculty position in Mechanical Engineering at the Colorado School of Mines in 1988. Because of the strong Metallurgy program at Mines, I was able to parley my love of welding into a research program trying to make welding robots more intelligent. Thirty-five years later I am still working on it!



# AWS NATIONAL AWARD WINNERS

## DESIGN OF WELDING PROCESSES, MACHINES, AND EQUIPMENT (II)

### “LASER JOINING OF CFRTS AND STEEL BY INTERFACIAL PRESSURE CONTROL”



**MR. JINYU BAI** received his master’s degree from Southwest Jiaotong University and joined Shanghai Institute of Optics and Fine Mechanics (SIOM). He serves as an R&D engineer, mainly engaged in research on welding processes for dissimilar material joints and design of welding equipment. He won many awards for his designed welding equipment such as highest award of 2022 China Disruptive Technology Innovation Competition, excellence award of the 5th China Advanced Technology Transformation and Application Competition and highest award of Shanghai High Value Patent Operation Competition etc. He participated in multiple collaborative projects with enterprises as a technical leader. He is also responsible for the exchange between the research institute and enterprises, the transformation of scientific-research achievements, and the implementation of technology.



**DR. ZHE LIN** received the Ph. D degree in material science and engineering from Tsinghua University in 2015. He is currently working as an associate professor in Shanghai Institute of Optics and Fine Mechanics, Chinese Academy of Sciences. His research interests include laser manufacturing, laser-material interaction, ultrafast laser machining and laser heat-treatment.



**DR. SHANGLU YANG** received his Ph.D. degree from Southern Methodist University. In 2010, he joined General Motors as senior researcher. In 2017, he joined Shanghai Institute of Optics and Fine Mechanics (SIOM), Chinese Academy of Sciences. He is a full professor and director of laser intelligent manufacturing lab and advanced welding and joining innovation platform at SIOM. He has published 45 peer-reviewed journal papers and holds 80 patents. His primary focus is on developing innovative welding and joining processes for lightweight materials such as zero-gap laser welding of zinc coated steels, resistance spot welding of aluminum based on Newton-Ring Electrode, active-expulsion assisted resistance spot welding of dissimilar materials. His developed innovative laser welding process for zinc coated steels has been implemented in several General Motors vehicle programs. He has received 2014 General Motor Individual Excellence, 2016 R&D 100 Award, 2018 Laser Focus World Innovators Awards: Platinum-Level Awards, 2022 Laser Focus World Innovators Awards: Silver-Level Awards etc. He is an editorial member of Chinese Journal of Lasers and key reader of Metallurgical and Materials Transactions A and Metallurgical and Materials Transactions B.



## AWS NATIONAL AWARD WINNERS

### DESIGN OF WELDING PROCESSES, MACHINES, AND EQUIPMENT (II)(CONT.)



#### **MR. QI'AN YIN**

I completed my undergraduate education in Southwest JiaoTong University majoring in Engineering Mechanics. Then I pursued a Master's Degree in National University of Singapore with a specialization of Advanced Manufacturing. During my graduate education, I achieved related knowledge on non-conventional manufacturing and material processing. After graduating from NUS, I served as a mechanical engineer in ASM Singapore Limited Company, a back-end semiconductor equipment supplier. I mainly focused on the development and maintenance of XY table, a critical module of wire bonder. During which I used numerical analysis to evaluate dynamic performance of XY table and designed some new parts or structure to optimize the original mechanism. I am able to carry out innovative projects and have a passion for research. Currently, I am in Professor Yang's team as a PhD Candidate in Shanghai Institute of Optics Fine Mechanics, Chinese Academy of Sciences. I am focusing on dissimilar laser welding between nickel based super alloy and titanium alloy as well as FEM simulation of laser welding process.





# AWS NATIONAL AWARD WINNERS

## DISTINGUISHED WELDER AWARD

This award is sponsored by the American Welding Society and is presented to an individual(s) who has exceptional welding skills and experiences related to all aspects of the art of welding.

*Recipient of Award:*

**Samanich, R. (2012)**  
**Tichelar, C. W. (2012)**  
**Bane, G. F. (2013)**  
**Sanchez, A. (2013)**  
**Collier, W. (2014)**  
**Duffield, A. (2014)**  
**Glidewell, D. S. (2014)**

**Kincaid, D. (2014)**  
**Thomas, D. (2014)**  
**Elsloo, D. (2015)**  
**Blom, J. D. (2016)**  
***No presentation (2017)***  
**Schmerl, J. (2018)**  
**Vachon, R. G. (2018)**

***No presentation (2019)***  
***No presentation (2020)***  
**Kustra, G. A. (2021)**  
**Gibbs, G. (2022)**

*No presentation this year*



## AWS NATIONAL AWARD WINNERS

### EXCELLENCE IN ROBOTIC AND AUTOMATED ARC WELDING AWARD

This award is sponsored by the American Welding Society to recognize significant individual achievements in the area of robotic arc welding. This work can include things such as the introduction of new technologies, establishment of the proper infrastructure (training, service, etc.) to enable success and any other activity having significantly improved the state of a company and/or industry. Since 2011, it has been awarded every other year.

*Recipient of Award:*

**Hinrichs, J. F. (2004)**

**Woodman, Jr. C. L. (2005)**

***No presentation (2006)***

**Lefebvre, R. R. (2007)**

***No presentation (2008)***

***No presentation (2009)***

***No presentation (2010)***

**Boillot, J-P (2011)**

***No presentation (2012)***

**Anderson, C. T. (2013)**

***No presentation (2014)***

**Noruk, J. S. (2015)**

***No presentation (2016)***

**Rhoda, D. P. (2017)**

***No presentation (2018)***

**Mangold Jr., V. L. (2019)**

***No presentation (2020)***

***No presentation (2021)***

**Rasmussen, C. (2022)**

*No presentation this year*



# AWS NATIONAL AWARD WINNERS

## DALTON E. HAMILTON MEMORIAL CWI OF THE YEAR AWARD

This award is sponsored by the American Welding Society in memory of Dalton E. Hamilton, who contributed greatly to the success of the Society’s Certified Welding programs. This award recognizes AWS members participating in the SCWI/CWI programs whose inspection, Society and civic activities have enhanced public awareness of the Society and the CWI program or who have otherwise made an outstanding contribution to the science of welding inspection

### *Recipient of Award:*

Mancuso, L. A. (1989)  
Sanquini, E. V. (1990)  
Soref, E. (1991)  
Hoffman, J. J. (1992)  
Tuttle-Stewart, J. (1993)  
Kriger, G. D. (1994)  
Sisson, J. E. (1995)  
Cole, G. L. (1996)  
Slote, R. C. (1997)  
Falbo, P. (1999)  
Plumstead, R. F. (2000)

Timmerman, H. T. (2001)  
Stockton, K. R. (2002)  
Beck, W. R. (2003)  
Fairbanks, Jr., G. D. (2004)  
Hennessy, J. P. (2005)  
Elwood, F. F. (2006)  
Willard, J. A. (2007)  
Kane, J. (2008)  
Zammit, P. (2009)  
Wright, D. (2010)  
Waite, R. F. (2011)

Alston, J. (2012)  
*No presentation* (2013)  
*No presentation* (2014)  
*No Presentation* (2015)  
Griffith, B. (2016)  
Twitty, D. L. (2017)  
Pariseau, J. (2018)  
Redding, J. (2019)  
Corbin, J. D. (2020)  
*No presentation* (2021)  
*No presentation* (2022)



**SHAWN BARRETT** is an experienced welder and inspector with over 38 years of experience in the field. He learned to weld in 1985 and was transitioned into inspection in 1999. He currently holds several certifications including AWS CWI, AWS CWE, ASNT Level III UT, MT, PT, and VT, NYSDOT UT, AAMP Senior Coatings Inspector, ICC S1 Bolting Inspector, as well as ASNT SNT-TC-1a Level II UT, MT, PT, and PAUT. Shawn has worked in various roles throughout his career. He initially began his welding career as a laborer and then moved up into the role of an ASME certified welder. In his current role as an inspector, Shawn is responsible for ensuring that all welding work is up to AWS D1.5 Bridge Welding Code and meets industry standards like the New York State Steel Construction Manual. Shawn is passionate about his work and is always looking for ways to improve his skills. He is committed to staying up to date with the latest industry standards and best practices.



# AWS NATIONAL AWARD WINNERS

## 2022 PAPER | W. H. HOBART MEMORIAL AWARD

This award is presented in memory of William H. Hobart, Sr., and is sponsored by Hobart Brothers Company. It is awarded to the authors of the paper published in the Welding Journal during the previous calendar year that describes the best contribution to pipe welding, the structural use of pipe or similar applications, excluding the manufacture of pipe.

### *Recipient of Award:*

- |                            |                               |                               |
|----------------------------|-------------------------------|-------------------------------|
| Howe, P. (1989)            | Kvaale, P. E. (2005)          | Li, L. (2014)                 |
| Signes, E. G. (1989)       | Van der Eijk, C. (2005)       | Deceuster, A. (2014)          |
| Marshall, P. W. (1990)     | Ramirez, J. E. (2006)         | Griffiths, B. (2014)          |
| Feng, Z. (1991)            | Mishael, S. (2006)            | Bortsov, A (2015)             |
| Grantham, J.A. (1991)      | Shockley, R. (2006)           | Frantov, I. I. (2015)         |
| Soisson, L. (1991)         | <i>No presentation</i> (2007) | Velichko, A. A. (2015)        |
| Tsai, C-L (1991)           | Kim, D. (2008)                | Utkin, I. Y. (2015)           |
| Bentley, A. E. (1992)      | Kim, T. H. (2008)             | Beidokhti, B. (2016)          |
| Giedt, W. H. (1992)        | Park, Y. W. (2008)            | Pouriamanesh, R. (2016)       |
| Hicken, G. K. (1992)       | Sung, K. (2008)               | Li, L. (2017)                 |
| Bezzant, R. K. (1994)      | Kang, M. (2008)               | Wang, Y. (2017)               |
| Engel, Jr., L. B. (1994)   | Kim, C-M (2008)               | <i>No presentation</i> (2018) |
| Ganesan, N. (1998)         | Lee, C-K (2008)               | Anderson, T. (2019)           |
| Krishnakumar, R. K. (1998) | Rhee, S. (2008)               | Fairchild, D. (2019)          |
| Raghupathy, V. P. (1998)   | Ramirez, J. E. (2009)         | Jin, H. (2019)                |
| Ravichandran, G. (1998)    | Onsøien, M. I. (2010)         | Ma, N. (2019)                 |
| Hummelgaard, P. (2002)     | M'Hamdi, M. (2010)            | Wasson, A. (2019)             |
| Mackie, P. (2002)          | Mo, Asbjørn (2010)            | Yue, X. (2019)                |
| Still, J. (2002)           | Shi, S. (2011)                | Parker, J. (2020)             |
| Bang, I-W (2003)           | Lippold, J. C. (2011)         | Siefert, J. A. (2020)         |
| Kim, W-S (2003)            | Ramirez, J. E. (2011)         | Thomson, R. (2020)            |
| Kim, Y. P. (2003)          | Drexler, E. (2012)            | Anderson, N. (2021)           |
| Oh, K. H. (2003)           | Darcis, P. P. (2012)          | Arafin, M. (2021)             |
| Son, Y-P (2003)            | McCowan, C. N. (2012)         | Collins, L. (2021)            |
| Bruce, W. A. (2004)        | Sowards, J. W. (2012)         | Guo, L. (2021)                |
| Frankel, G. S. (2004)      | McColskey, J. D. (2012)       | Kannan, R. (2021)             |
| Kock, G. H. (2004)         | Siewert, T. A. (2012)         | Li, L. (2021)                 |
| Omweg, G. M. (2004)        | Li, X. R. (2013)              | Rashid, M. (2021)             |
| Ramirez, J. E. (2004)      | Shao, Z. (2013)               | Kumar Dwivedi, D. (2022)      |
| Akselsen, O. M. (2005)     | Zhang, Y. (2013)              | Kulkarni, A. (2022)           |
| Rørvik, G. (2005)          | Silwal, B. (2014)             | Vasudevan M. (2022)           |



## AWS NATIONAL AWARD WINNERS

### “HYBRID LASER-ARC WELDING OF THICK-WALLED, CLOSED, CIRCUMFERENTIAL PIPE WELDS”



**ÖMER ÜSTÜNDAG** studied naval architecture and ocean engineering at the Technische Universität Berlin in 2010-2017. From 2017 to 2019, Ömer Üstündag worked as research assistant at Fraunhofer Institute for Production Systems and Design Technology IPK in the Joining and Coating Technology department. Since 2019, he has been working as research assistant at the Bundesanstalt für Materialforschung und -prüfung (BAM) in the Welding Technology division. The focus of his scientific work is on the field of laser beam and laser hybrid welding of thick sheets, especially on the contactless electromagnetic backing system. His research has resulted in over 40 published papers on his areas of expertise. Ömer Üstündag is a member of the German Welding Society (DVS).practices.



**DR.-ING. NASIM BAKIR** After graduating with a degree in mechanical engineering in 2007, Dr. Nasim Bakir spent three years gaining industrial experience before transitioning into a research career. He started as a research assistant at TU Berlin and later moved to the Federal Institute of Materials Research and Testing, where he worked for nine years. During this time, his research interests primarily focused on laser and hybrid welding of both thin and thick-walled components, as well as gaining experience in numerical simulation and solidification cracking. In 2020, Dr. Bakir completed his dissertation, which centered on developing a novel optical measurement technique to measure strains and displacements during the laser welding process. His research has resulted in over 40 published papers on his areas of expertise. Dr. Bakir is also a member of the German Welding Society (DVS).



**DR. SERGEJ GOOK** studied welding technology at the South-Russian State Polytechnic University (NPI) in 1992-1997. From 1997 to 2002, Dr. Gook worked as a PhD student on the development of methods for technical diagnostics of machinery and equipment of power generation plants. He obtained his doctorate from the Technical University of Volgograd, Russia in 2002. In 2006, he completed a research internship at Bundesanstalt für Materialforschung und -prüfung (BAM) in Berlin, where he gained in-depth experience in laser hybrid welding of thick metal sheets using a 20-kW fiber laser. Since 2007, he has been working as a research assistant at Fraunhofer Institute for Production Systems and Design Technology IPK, Berlin. The focus of his scientific work is on the field of laser beam, laser hybrid and multi-wire submerged arc welding of thick sheets. Dr. Gook has published over 50 papers on his research topics. He is a member of the German Welding Society (DVS).



# AWS NATIONAL AWARD WINNERS

## 2022 PAPER | W. H. HOBART MEMORIAL AWARD (*cont*)



**DR.-ING. ANDREY GUMENYUK** studied physics at the Tomsk State University, Russia in 1988-1994. From 1994 to 1997 he was a PhD student at St. Petersburg State Technical University in field of laser technology. 1997 he obtained a DAAD fellowship for research project at ISF RWTH in Aachen, where he continued to work as a research assistant until 2007. 2004 he made his PhD in laser beam welding of Al-Alloys. 2007 Dr. Gumenyuk joined Bundesanstalt für Materialforschung und -prüfung (BAM) in Berlin as a group leader for laser and hybrid welding. Since 2011 he was in charge of department head for welding technology at Fraunhofer Institute for Production Systems and Design Technology IPK, Berlin. The focus of his scientific work is on the field of laser beam, laser hybrid welding of thick sheets as well as additive laser material deposition technology. Dr. Gumenyuk has published over 100 papers on different research topics. Since 2019 he is associate editor of Optics and Laser Technology Journal. He is a member of different technical committees of German Welding Society (DVS), International Institute of Welding (IIW) and International Organization for Standardization (ISO).



**PROF. DR.-ING. MICHAEL RETHMEIER** studied mechanical engineering at the Technische Universität Braunschweig (Germany) between 1993 and 1999. From 1999 to 2002 he was a research assistant at the Institute of Welding of the Technische Universität Braunschweig. In 2003 he finished his PhD in MIG welding of magnesium alloys. From 2002 to 2007 he was at the Volkswagen Group research, where he was deputy head of the department Manufacturing Technology and Production Concepts. 2007 Prof. Rethmeier joined the Institute of Machine Tools and Factory Management at the Technische Universität Berlin as a full professor and the Bundesanstalt für Materialforschung und -prüfung (BAM) in Berlin as a leader of the Welding Technology division. Since 2009 he has been in charge of the department of welding and coating technology at Fraunhofer Institute for Production Systems and Design Technology IPK, Berlin. The focus of his scientific work is on the field of laser beam, laser hybrid welding of thick sheets, arc welding, resistance spot welding, additive manufacturing, as well as welding simulation. Prof. Rethmeier has published over 500 papers on different research topics. He is a member of different technical committees of the German Welding Society (DVS), International Institute of Welding (IIW), International Organization for Standardization (ISO), German Institute for Standardization (DIN), German Research Foundation (DFG) and German Federation of Industrial Research Associations (AiF).



# AWS NATIONAL AWARD WINNERS

## HONORARY MEMBER AWARD

This award is sponsored by the American Welding Society and is presented to a person of acknowledged eminence in the welding profession or who is credited with exceptional accomplishments in the industry.

### *Recipient of Award:*

- |                           |                               |                               |
|---------------------------|-------------------------------|-------------------------------|
| Pepper, C. E. (1989)      | Hastings, D. F. (1999)        | Lipphardt, E.C. (2010)        |
| Siewert, T. A. (1989)     | McQuaid, D. L. (2000)         | Dilthey, U. (2011)            |
| Hinricks, J. F. (1990)    | Slaughter, G. M. (2000)       | DeRocco, E. S. (2012)         |
| Moeller, J. W. (1990)     | Baeslack, III, W. A. (2001)   | McNelly, J. M. (2012)         |
| Hemzacek, R. T. (1991)    | Sekely, J. J. (2001)          | Bileca, M. (2013)             |
| Ritter, S. L. (1991)      | Cieslak, M. J. (2002)         | Alonso, Jr., O. (2013)        |
| Bovie, D. F. (1992)       | Stopki, Jr., J. M. (2002)     | Andringa, M. V. (2014)        |
| David, S. A. (1992)       | DebRoy, T. (2003)             | Yevick, E. G. (2014)          |
| Booher, K. L. (1993)      | Weller, M. L. (2003)          | Feng, Z (2015)                |
| Cary, H. B. (1993)        | Mustaleski, Jr., T. M. (2004) | White, T. J. (2015)           |
| Cable, H. H. (1994)       | Roth, D. K. (2004)            | Kou, S. (2016)                |
| Campbell, H. C. (1994)    | DeFreitas, L. (2005)          | Purvis, R. F. (2016)          |
| Kammer, P. A. (1995)      | Edwards, G. R. (2005)         | Cook, M. C. (2017)            |
| Olson, D. L. (1995)       | Cole, N. C. (2006)            | Ruof, W. (2017)               |
| Christoffel, R. J. (1996) | Nangle, D. J. (2006)          | DuPont, J. N. (2018)          |
| Liu, S. (1996)            | Beneteau, D. M. (2007)        | <i>No presentation</i> (2019) |
| Collin, A. L. (1997)      | Sciaky, A. (2007)             | Allford, D. (2020)            |
| Mohri, T. (1997)          | Davis, C. (2008)              | Barbie the Welder (2020)      |
| O'Brien, R. L. (1998)     | Elmer, J. W. (2008)           | Zhou, Y. N. (2021)            |
| Urbick, W. F. (1998)      | Dammann, J. (2009)            | Ripple, R. (2022)             |
| Eagar, T. W. (1999)       | Kvidahl, L. G. (2009)         |                               |



**DR. HONGYAN ZHANG** began his welding career in the early 1990s at the Ohio State University, working on modeling creep damage of 316 stainless steel weldments. He joined the University of Michigan at Ann Arbor in 1993, first as a research fellow and then as an assistant research scientist, before moving to the University of Toledo in 2000 to establish a Materials Joining Research Laboratory. Dr. Zhang's research has focused on joining difficult-to-weld materials for automotive weight reduction, emphasizing aluminum welding and advanced high strength steel welding. Dr. Zhang's contributions to the welding profession include research, teaching, and service. He co-authored the acclaimed book "Resistance Welding: Fundamentals and Applications," well-received by the international welding community, with three editions published (2006, 2012, and 2017). In his teaching, he integrated state-of-the-art knowledge and real-life examples, mentoring four PhD students and 30 MS students. Dr. Zhang has also shared his expertise through various welding-related conferences, collaborations with industrial companies, and service on AWS technical committees.

An active American Welding Society member since 1996, he initiated and advised the UT Student Chapter and was elected as a fellow in 2016 for his contributions to joining lightweight materials.





# AWS NATIONAL AWARD WINNERS

## INTERNATIONAL MERITORIOUS CERTIFICATE AWARD

This award is given in recognition of the individual's significant contributions to the worldwide welding industry. This award reflects "service to the international welding community" in the broadest terms.

### *Recipient of Award:*

Bramat, M. (1999)  
Hernandez, G. (1999)  
Kotecki, D. J. (2000)  
Thomas, Jr., R. D. (2000)  
Quintino, M. (2001)  
Von Hofe, I. (2001)  
Wall, N. C. (2001)  
Al-Erhayem, O. (2002)  
Braithwaite, B. (2002)  
Matsunawa, A. A. (2003)  
Ramsey, P. W. (2003)  
Dolby, R. (2004)  
Levert, Sr., E. D. (2004)  
Pekkari, B. (2005)  
Cornish, S. P. (2006)  
Pilarczyk, J. (2006)

Smallbone, C. (2006)  
Beaufils, D. (2007)  
Fink, D. A. (2007)  
Sperko, W. J. (2007)  
Davis, C. (2008)  
Tsai, C-L (2008)  
Luciani, D. R. (2009)  
Sperko, W. J. (2009)  
Ahrens, C. (2010)  
Liu, S. (2010)  
Mustaleski, Jr., T. J. (2010)  
Ziegenfuss, H. G. (2010)  
Bernasek, M. (2011)  
Miglietti, W. (2012)  
Middeldorf, K. (2012)  
Scotchmer, N. (2013)

Diez, F. M. (2014)  
Mukherjee, A. K. (2015)  
Ymker, K. (2016)  
Marshall, P. W. (2017)  
Shaw, R. E. (2017)  
Newell, Jr., W. F. (2018)  
Tumuluru, M. (2018)  
Hochanadel, P.W. (2019)  
Ferraz, R. (2020)  
Freeman, R. (2020)  
Zhang, Y. (2020)  
Miglietti, W. (2021)  
Wu, CS. (2021)  
Borrelli, J. (2022)  
Johnston, M. (2022)

*No presentation this year*





# AWS NATIONAL AWARD WINNERS

## WILLIAM IRRGANG MEMORIAL AWARD

This award is sponsored by The Lincoln Electric Company to honor the late William Irrgang. It is awarded to the individual who has done the most to enhance the American Welding Society's goal of advancing the science and technology of welding over the last five years.

### *Recipient of Award:*

Hemzacek, R. T. (1989)  
Manz, A. F. (1990)  
Goodwin, G. M. (1991)  
Olson, D. L. (1992)  
Eagar, T. W. (1993)  
Mustaleski, T. M. (1994)  
Hastings, D. F. (1995)  
David, S. A. (1996)  
Cieslak, M. J. (1997)  
Edwards, G. R. (1998)  
Shira, C. S. (1999)  
Graff, K. F. (2000)

Howden, D. G. (2001)  
Lippold, J. C. (2002)  
Jellison, J. L. (2003)  
Pierce, R. C. (2004)  
Kvidahl, L. (2005)  
DuPont, J. N. (2006)  
McQuaid, D. L. (2007)  
Elmer, J. W. (2008)  
Girotra, C.B.C. (2009)  
Thomas, W. (2010)  
Babu, S. S. (2011)  
Stockton, K. R. (2012)

Mendez, P. (2013)  
Wei, P-S (2014)  
Landon, D. J. (2015)  
Lienert, T. J. (2016)  
Zhang, Y. (2017)  
Kou, S. (2018)  
Tumuluru, M. (2019)  
Newell, Jr., W. F. (2020)  
Debroy, T. (2021)  
Campbell, R. (2022)



**WALTER J. SPERKO** P.E., is President of Sperko Engineering Services, Inc., a consulting firm specializing in metal fabrication technology. He has been on the AWS D10 committee since 1979, AWS International Standards Activities Committee which represents the US at meetings of ISO/TC44 since 2000 and on AWS Technical Activities Committee since 2013. He was a Director-at-Large from 2016 until 2023. He has published updates on ASME Section IX in the Welding Journal since 1998 and has been teaching engineers and technicians how to use Section IX since 1983. In 2021 he started teaching this course for AWS. He is an AWS Counselor, ASME Fellow and a professional engineer registered in several states.



# AWS NATIONAL AWARD WINNERS

## 2022 PAPER | CHARLES H. JENNINGS MEMORIAL AWARD

This award is sponsored by the American Welding Society in honor of Charles H. Jennings, who served as AWS President during the 1951–52 year. This award is presented for the most valuable paper written by a college student or faculty representative published in the *Welding Journal* during the previous calendar year.

### *Recipient of Award:*

- |                                    |                                  |                        |
|------------------------------------|----------------------------------|------------------------|
| Baeslack III, W. A. (1989)         | Surian, E. (1998)                | Huang, Y. (2012)       |
| Lata, W. P. (1989)                 | Baeslack III, W. A. (1999)       | Zhang, Y. (2012)       |
| West, S. L. (1989)                 | Lienert, T. (1999)               | Zhang, W. (2013)       |
| David, S. A. (1990)                | Nagy, P. B. (1999)               | Zhang, Y. (2013)       |
| Maguire, M. C. (1990)              | DuPont, J. N. (2000)             | Wagner, D. C. (2014)   |
| Santella, M. L. (1990)             | Michael, J. R. (2000)            | Yang, Y. (2014)        |
| Choi, I. (1991)                    | Newbury, B. D. (2000)            | Kou, S. (2014)         |
| Lisin, M. (1991)                   | Kou, S. (2001)                   | Huang, X (2015)        |
| Matlock, D. K. (1991)              | Limmaneevichitr,<br>C. L. (2001) | Le Gall, I. (2016)     |
| Olson, D. L. (1991)                | Huang, C-C (2002)                | Mendez, P. F. (2016)   |
| Eagar, T. W. (1992)                | Kou, S. (2002)                   | Borle, S. (2016)       |
| Kim, Y-S (1992)                    | Kang, Y. H. (2003)               | Lippold, J. C. (2017)  |
| McEligot, D. M. (1992)             | Na, S-J (2003)                   | Wheeling, R. A. (2017) |
| David, S. A. (1993)                | Eagar, T. W. (2004)              | Debroy, T. (2018)      |
| Edwards, G. R. (1993)              | Mendez, P. F. (2004)             | Liu, T. (2018)         |
| Maguire, M. C. (1993)              | Collins, M. G. (2005)            | Qui, W. C. (2018)      |
| Shepard, S. D. (1994)              | Ramirez, A. J. (2005)            | Wei, H. (2018)         |
| Vogler, M. M. (1994)               | Lippold, J. C. (2005)            | Yang, L. (2018)        |
| Bransch, H. N. (1995)              | De, Amitava (2006)               | Dai, T. (2019)         |
| Kerr, H. W. (1995)                 | DebRoy, T. (2006)                | Lippold, J. (2019)     |
| Weckman, D. C. (1995)              | Kumar, A. (2007)                 | Aidun, D. (2020)       |
| DuPont, J. N. (1996)               | DebRoy, T. (2007)                | Goldak, J. (2020)      |
| DuPont, J. N. (1996)               | Nguyen, T. C. (2008)             | Martinez, M. (2020)    |
| Marder, A. R. (1996)               | Weckman, D. C. (2008)            | Nimrouzi, H. (2020)    |
| DebRoy, T. (1997)                  | Johnson, D. A. (2008)            | Pliazhuk, M. (2020)    |
| Ebner, R. (1997)                   | Payares-Asrino, M. C. (2009)     | Reyes, C. (2020)       |
| Mundra, K. (1997)                  | Katsumoto, H. (2009)             | Kou, S. (2021)         |
| Pitscheneder, W. (1997)            | Liu, S. (2009)                   | Liu, K. (2021)         |
| Bott, I. D. S. (1998)              | Firouzdor, V. (2010)             | Yu, P. (2021)          |
| Corvalan, P. (1998)                | Kou, S. (2010)                   | Aidun, D. (2022)       |
| Jorge, J. C. F. (1998)             | Moulton, J. A. (2011)            | Hejripour, F. (2022)   |
| Ramini de<br>Rissone, N. M. (1998) | Weckman, D. C. (2011)            |                        |



## AWS NATIONAL AWARD WINNERS

### “ENTIRE PROCESS SIMULATION OF FRICTION STIR WELDING — PART 1: EXPERIMENTS AND SIMULATION”



**PROFESSOR DR. YONGXIAN HUANG** is the dean of the Department of Welding Technology and Engineering and the deputy director of the State Key Laboratory of Advanced Welding and Joining. He received his Ph.D. degree from Harbin Institute of Technology in 2008. His research focuses on the basis and application of friction stir welding, processing, additive manufacturing, and derived technologies. He has published 160 scientific papers on *Welding Journal*, *Progress in Materials Science*, *Advanced Science*, *Additive Manufacturing*, *Composites Science and Technology*, *Corrosion Science*, *Scripta Materialia*, etc. and 100 granted patents about friction stir-based techniques. His H-index is 42 and his papers have been cited more than 4000 times. 6 papers published by him have been selected as the ESI highly cited papers. He has published 3 books. He has won provincial/ministerial level science/technology/educational awards 4 times.



**ASSOCIATE PROFESSOR XIANGCHEN MENG** is an associate professor at Harbin Institute of Technology. He received his Ph.D. degree from Harbin Institute of Technology in 2020. His research interests focus on solid-state welding and additive manufacturing. To date, he has published over 100 peer reviewed journal articles and over 20 granted patents, such as on *Welding Journal*, *Progress in Materials Science*, *Advanced Science*, *Additive Manufacturing*, *Composites Science and Technology*, *Corrosion Science*, *Scripta Materialia*, etc. which have received a total citation of more than 3000 times with an H-index of 30. 6 papers published by him have been selected as the ESI highly cited papers. He has also published 3 books.



**DR. YUMING XIE** is an assistant professor at Harbin Institute of Technology. He received his Ph.D. degree from Harbin Institute of Technology in 2022. His research focuses on the deformation-driven metallurgy and numerical modelling of friction stir welding. He proposed an entire-process simulation method for friction stir welding, including welding parameters, structural response, microstructural evolution, and mechanical performances, which has been applied in the industrial production of high-speed railways. He prepared carbonaceous nanomaterials-reinforced aluminum matrix composites via deformation-driven metallurgy, which demonstrates the feasibility of applying severe plastic deformation technique to the preparation of high-performance metallic materials. He has published 60 scientific papers in *Welding Journal*, *Advanced Science*, *Scripta Materialia*, etc. and 20 granted patents. His H-index is 25 and his papers have been cited more than 2000 times. 5 papers published by him have been selected as the ESI highly cited papers. He has won provincial/ministerial level science/technology/educational awards 2 times.



# AWS NATIONAL AWARD WINNERS

## 2022 PAPER | JAMES F. LINCOLN GOLD MEDAL AWARD

This award is endowed by the late J. F. Lincoln, former Chairman of the Board of The Lincoln Electric Company. This award is presented for the paper with a single author that represents the best original contribution to the advancement and use of welding published in the Welding Journal during the previous calendar year.

### Recipient of Award:

- |                               |                               |                               |
|-------------------------------|-------------------------------|-------------------------------|
| Pollard, B. (1989)            | Kinsey, A. J. (2001)          | <i>No presentation</i> (2013) |
| Alberry, P. J. (1990)         | Solomon, H. D. (2002)         | Ramirez, J. E. (2014)         |
| Alcini, W. (1991)             | <i>No presentation</i> (2003) | Badger, J. A. (2015)          |
| Cieslak, M. J. (1992)         | Pargeter, R. (2004)           | Kou, S. (2016)                |
| Evans, G. M. (1993)           | <i>No presentation</i> (2005) | <i>No presentation</i> (2017) |
| Janosch, J. J. (1994)         | <i>No presentation</i> (2006) | <i>No presentation</i> (2018) |
| Gould, J. E. (1995)           | <i>No presentation</i> (2007) | <i>No presentation</i> (2019) |
| Castner, H. R. (1996)         | Tumuluru, M. (2008)           | <i>No presentation</i> (2020) |
| Fuerschbach, P. W. (1997)     | Metzler, D. A. (2009)         | <i>No presentation</i> (2021) |
| <i>No presentation</i> (1998) | <i>No presentation</i> (2010) | Sampath, K. (2022)            |
| Fuerschbach, P. W. (1999)     | Tumuluru, M. (2011)           |                               |
| Colligan, K. J. (2000)        | <i>No presentation</i> (2012) |                               |

### “HYBRID LASER-ARC WELDING OF THICK-WALLED, CLOSED, CIRCUMFERENTIAL PIPE WELDS”



**OLIVIA DENONNO** received her undergraduate and master’s degree in metallurgical and materials engineering at the Colorado School of Mines. During her undergraduate degree, she worked on research related to braze repair of nickel-base superalloys and rapid austenitizing of carburized steel. Her master’s thesis topic was on solidification behavior and crystallographic texture of laser wire directed energy deposition of 316L austenitic stainless steel. During her summers she works at Goddard Space and Flight Center - NASA in the Materials Engineering Branch. She is currently pursuing her PhD at the Colorado School of Mines in materials and metallurgical engineering. Her project involves characterization of the weldability and creep performance of additive manufactured stainless steels.



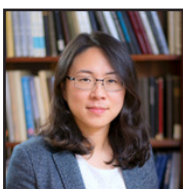
**PROFESSOR JONAH KLEMM-TOOLE** is an Assistant Professor of Metallurgical and Materials Engineering at Colorado School of Mines. Jonah completed the Applied Welding Technologies program at Santa Fe Community College in Gainesville Florida and worked as welder during high school and college. After graduating with a B.S. in Materials Science and Engineering at University of Florida in 2008, Jonah worked at Power Systems Manufacturing in Jupiter Florida focusing on manufacturing and repair of industrial gas turbine components. Jonah left industry in 2013 to pursue higher education at Colorado School of Mines where he obtained his Ph.D. After defending his dissertation in 2019, Jonah was a post-doctoral fellow until Fall 2020 when he started as an Assistant Professor in the Metallurgical and Materials Engineering department at Colorado School of Mines. Now, Jonah teaches courses and conducts research focusing on processing-microstructure-mechanical property relationships in structural materials with a focus on welding and additive manufacturing of high temperature alloys.



## AWS NATIONAL AWARD WINNERS



**DR. BENJAMIN SCHNEIDERMAN** received his undergraduate degree in chemical engineering and his PhD in metallurgical and materials engineering from the Colorado School of Mines. His thesis topic involved characterization of the constituent phases in a novel multi-principal element alloy for brazing and repair of nickel-base superalloys. He has coauthored multiple technical papers and presented at numerous technical conferences pertaining to this research. While completing his PhD, he co-founded HYSA Fillers LLC, an SBIR-funded small business dedicated to exploring the commercialization potential of novel alloys for niche market applications, including nickel alloy brazing and liquid metal embrittlement mitigation in automotive resistance spot welding. He currently holds a post-doctoral position at the Colorado School of Mines and serves CTO functions for HYSA Fillers.



**PROFESSOR ZHENZHEN YU** is an Associate Professor in the department of Metallurgical and Materials Engineering (MME) at Colorado School of Mines, and the Director of the Center for Joining, Welding and Coatings Research (CWJCR). She is also a joint faculty at National Renewable Energy Laboratory. She received MS and PhD degrees from the Department of Materials Science and Engineering at the University of Tennessee, Knoxville and B.S. degree from Mechanical Engineering at East China University of Science and Technology. Before joining CSM, she worked as a postdoctoral research associate at Oak Ridge National Laboratory. Her research interests include weld metallurgy, consumables design, development of similar/dissimilar joining technologies, and simulation and characterization of transient material states during joining processes. She received Prof. Koichi Masubuchi Award and A.F. Davis Silver Metal Award in 2021, McKay-Helm Award in 2020, and the National Science Foundation Faculty Early Career Development (CAREER) Award in 2019.



# AWS NATIONAL AWARD WINNERS

## 2022 PAPER | MCKAY-HELM AWARD

This award is sponsored by Hobart Brothers Company, to honor two pioneers of the welding industry. James C. McKay was the president of the McKay-Helm Company for more than 30 years, and Dr. David Helm occupied the McKay chair in welding metallurgy at the Mellon Institute in Pittsburgh from 1934 to 1973. It is presented for the best contribution to the advancement of knowledge of low-alloy steel, stainless steel or surfacing welding metals, involving the use, development or testing of these materials, as represented by articles published in the Welding Journal during the previous calendar year.

### *Recipient of Award:*

McCowan, C. N. (1989)  
Olson, D. L. (1989)  
Siewert, T. A. (1989)  
Matlock, D. K. (1990)  
Oldland, P. T. (1990)  
Olson, D. L. (1990)  
Ramsay, C. W. (1990)  
Ginn, B. J. (1991)  
Gooch, T. G. (1991)  
Cremers, D. A. (1992)  
Korzekwa, D. R. (1992)  
Lewis, G. K. (1992)  
Ke, L. (1993)  
North, T. H. (1993)  
Shinozaki, K. (1993)  
DebRoy, T. (1994)  
Mundra, K. (1994)  
Lippold, J. C. (1995)  
Karlsson, L. (1996)  
Pak, S. (1996)  
Ryen, L. (1996)  
Baeslack, W. A. (1997)  
Lippold, J. C. (1997)  
Shademan, S. (1997)  
Murugan, N. (1998)  
Parmar, R. S. (1998)  
Maguire, M. C. (1999)  
Michael, J. R. (1999)  
Robino, C. V. (1999)  
Brooks, J. A. (2000)  
Garrison, Jr., W. M. (2000)  
Iskander, Y. S. (2001)  
Oblow, E. M. (2001)  
Vitek, J. M. (2001)  
Babu, S. S. (2002)  
David, S. A. (2002)  
McLane, J. E. (2002)

Quintana, M. A. (2002)  
Liu, S. (2003)  
Wang, W. (2003)  
Grimmett, B. B. (2004)  
Lienert, T. J. (2004)  
Stellwag, Jr., W. L. (2004)  
Warke, R. W. (2004)  
Lensing, C. A. (2005)  
Park, Y-D (2005)  
Maroef, I. S. (2005)  
Olson, D. L. (2005)  
Zsofka, S. K. (2006)  
DuPont, J. N. (2006)  
Marder, A. R. (2006)  
Sudha, C. (2007)  
Paul, V. T. (2007)  
Terrance, A. L. E. (2007)  
Saibaba, S. (2007)  
Vijayalkahsmi, M. (2007)  
Cho, M. H. (2008)  
Farson, D. F. (2008)  
Kapustka, N. (2009)  
Conrardy, C. (2009)  
Babu, S. S. (2009)  
Albright, C. E. (2009)  
Rai, R. (2010)  
Palmer, T. (2010)  
Elmer, J. (2010)  
DebRoy, T. (2010)  
Sowards, J. W. (2011)  
Ramirez, A. J. (2011)  
Dickinson, D. W. (2011)  
Lippold, J. C. (2011)  
No presentation (2012)  
Taban, E (2013)  
Bhooge, A. (2013)  
Kaluc, E. (2013)

Deleu, E. (2013)  
DuPont, J. N. (2014)  
Stockdale, A. (2014)  
Caizza, A. (2014)  
Esposito, A. (2014)  
Aidun, D. K. (2015)  
Bahrami, A. (2015)  
Valentine, D. T. (2015)  
Carlton, H. D. (2016)  
Elmer, J. W. (2016)  
Pong, R. (2016)  
Vaja, J. (2016)  
Blecher, J. J. (2017)  
DebRoy, T. (2017)  
Palmer, T. A. (2017)  
Li, L. (2018)  
Xu, P. (2018)  
Zhou, D. (2018)  
Cao, Y. (2019)  
Luo, C. (2019)  
Shan, J. (2019)  
Zhou, L. (2019)  
Switzner, N. T. (2020)  
Yu, Z. (2020)  
Johnson, A. (2021)  
Carpenter, J. S. (2021)  
Coughlin, D. R. (2021)  
Dvornak, M. J. (2021)  
Elmer, J. W. (2021)  
Gibbs, G. (2021)  
Gurung, P. (2021)  
Hochanadel, P. W. (2021)  
Vaja, J. (2021)  
Kou, S. (2022)  
Morrow, J. D. (2022)  
Yu, P. (2022)





## AWS NATIONAL AWARD WINNERS

### “THE TOUGHNESS OF HIGH-STRENGTH STEEL WELD METALS”



**DR. TAO DAI** received a B.S. degree in Materials Science and Engineering from University of Science and Technology Beijing, China. He received a M.S. degree in Metallurgical Engineering from RWTH Aachen University, Germany. In 2018, he received his PhD in Welding Engineering at the Ohio State University (OSU) under Professor John Lippold. His research work in the OSU were recognized by the American Welding Society with three awards: Warren F. Savage Memorial Award (2016), William Spraragen Memorial Award (2018), and Charles H. Jennings Memorial Award (2019). From 2018-2021, he worked as a postdoc researcher in the materials joining group of Oak Ridge National Laboratory (ORNL) under Dr. Zhili Feng. His papers based on the work in the ORNL have been recognized by the AWS with two awards in 2023. Dr. Dai is currently working as an assistant professor in the materials joining department of LeTourneau University. He has passion in training next generation welding engineers and has research interests in welding metallurgy, weldability test, materials characterization, and welding processes.



**DR. STAN DAVID** is recognized nationally and internationally for his extensive contributions to welding science and technology, and solidification through innovative experimental techniques and associated theories. He received his PhD from the University of Pittsburgh and is a corporate Fellow Emeritus at Oak Ridge National Laboratory. He has published over 350 papers and founding editor of the journal Science and Technology of Welding and Joining. He is a Fellow of The ASM International, The Materials Society, American Welding Society and, The International Institute on Welding. (FASM, FTMS, FAWS, and FIW). He is the founder, organizer, chairman and cochairman and editor of 11 International conferences and proceedings on Trends in Welding Research and Technology. He has received numerous awards from AWS, ASM International, TMS and the International Institute of Welding.



**DR. ZHILI FENG** leads the Materials Joining Group and is a Distinguished R&D Staff of Oak Ridge National Laboratory. He manages a multi-disciplinary team conducting both fundamental and applied R&D and technology innovations related to materials joining and allied materials manufacturing processes, for automotive, nuclear energy, fossil energy, hydrogen and renewable energy, and defense applications. A Fellow of AWS and IIW, Dr. Zhili Feng's research covers various aspects of thermal-mechanical-metallurgical behaviors of materials in materials processing. He is recognized for his work in advancing the science and technology of materials joining in a number of important areas such as integrated computational welding engineering (ICWE), application of machine learning and AI for welding process control and automation, friction stir welding and processing, proactive weld residual stress control and management, novel solid-state joining processes of dissimilar metals, and application of advanced neutron and synchrotron scattering tools to study the fundamentals of weld microstructure evolution and effects on weld properties and performance of welded structures. He is also a Joint Faculty of University of Tennessee, Knoxville. He obtained his BS and MS from Tsinghua University, and PhD from The Ohio State University in Welding Engineering.



# AWS NATIONAL AWARD WINNERS

## 2022 PAPER | MCKAY-HELM AWARD *(cont)*



**MATTHEW ROGERS** is the Branch Chief for the Materials Joining Branch at the U.S. Army Ground Vehicle System Center (GVSC) in Warren MI since 2009. Matt currently has a Bachelor of Science in Welding Engineering Technology from Ferris State University and a Master of Science in Engineering Management at the University of Michigan Dearborn. Matt started his career with Roman Engineering Services from 2004 to 2009 on multiple automotive and heavy equipment launches.

Then in 2009 Matt joined the US Army GVSC within their Materials team. The team expanded into a directorate with five main areas of focus in Additive Manufacturing, Material maturation and design optimization for light weighting, Joining, Characterization and Failure Analysis, and Environmental Coatings and Corrosion. Matt's Team mission is to provide materials joining solutions through our technical expertise across the life cycle of military ground vehicles and support systems.



**DEMETRIOS A. TZELEPIS** is a Sr. Materials Engineer with 23 years of experience in materials science and engineering with emphasis on metallic materials for automotive applications. His work has been focused on Failure Analysis of automotive components, materials characterization, process development and design and selection materials. Demetri worked as a Sr. Materials Engineer General Motor Powertrain. After General Motors, Demetri worked as Sr. Materials Engineer and design release engineer at Benteler Automotive. He was responsible for the design and release of automotive stampings using Benteler's hot stamp process. He was also responsible for writing and maintaining steel purchase specifications. Currently Demetrios is employed at GVSC as a Technical Specialist for Metals in the Materials Engineering Directorate. He has been conducting failure analysis for various army vehicles, providing guidance for materials selection, and participated in the welding code re-write effort. Demetri is leading an effort to develop welding wires for armor grade steel and wire arc additive manufacturing process. Demetri has a B.Sc. in Metallurgical Sciences and Engineering from Michigan Technological University, and an M.Sc. in Mechanical Engineering from Oakland University and is currently a Ph.D. candidate at Michigan State University, where he is studying the effect of nanoparticles on polyurea based polymers.



**DOUGLAS KYLE** has been working in the welding and material science fields for the past 25 years. Starting with structural and bridge fabrication, then moving into Petro-chemical piping, boiler and pressure vessel inspection, and finally R&D welding, and materials science at Oak Ridge National Laboratory (ORNL). Doug earned A.A.S degrees in welding and metallurgy from Southeast Community College and Nondestructive testing from Cowley County Community College, along with a B.S. in project management from Bellevue University. Doug is a National Board of Boiler and Pressure Vessel Inspector, an A.S.Q. certified green belt, with previous certifications as ASNT Level III in radiographic and ultrasonic testing. Doug has been an American Welding Society Certified Welding Inspector for the past 20 years. His work at ORNL includes performing R&D welding utilizing arc, laser, electron beam, solid state, robotic, and automatic welding equipment for projects that advanced materials joining science through development of new joining technologies by understanding weld micro-structure evolution, properties, and performance. Doug is currently part of the ORNL Neutron Scattering Division where he is working with the operations group at High Flux Isotope Reactor that uses neutrons to study physics, chemistry, materials science, engineering, and biology.





## AWS NATIONAL AWARD WINNERS

### 2022 PAPER | MCKAY-HELM AWARD *(cont)*



**DR. KATHERINE SEBECK** received her Ph.D. in Materials Science and Engineering from the University of Michigan in 2015, supported by the SMART Scholarship program and the NDSEG Fellowship Program. She was also the J. Robert Beyster Computational Innovation Graduate Fellow. She currently works at the US Army Ground Vehicle Systems Center in the Ground Vehicle Materials Engineering division as a Specialist Research Engineer. Her current work focuses on material maturation for vehicle structural applications, including maturation of lightweight armor steels, development of processing for future platform integration, and integrated computational materials engineering applications.

**KATHERINE VIEAU** is a Mechanical Engineer for DEVCOM – GVSC.



# AWS NATIONAL AWARD WINNERS

## PROFESSOR KOICHI MASUBUCHI AWARD

This award is sponsored by the Center for Ocean Engineering at the Department of Mechanical Engineering, Massachusetts Institute of Technology. It was established to recognize Professor Koichi Masubuchi, who has made significant contributions to advancing the science and technology of welding, especially welding fabrication of marine and space structures. This award is presented to an individual who has made significant contributions to the advancement of science and technology of materials joining through research and development.

### *Recipient of Award:*

Baeslack III, W. A. (1992)  
Kokawa, H. (1992)  
Cieslak, M. J. (1993)  
Ohkita, S. (1993)  
Buchmayr, B. (1994)  
Shinozaki, K. (1994)  
Elmer, J. W. (1995)  
Minami, F. (1995)  
Grong, O. (1996)  
Lin, W. (1996)  
Kim, D. S. (1997)  
Robino, C. V. (1997)

Babu, S. S. (1998)  
DuPont, J. N. (1999)  
Feng, Z. (2001)  
Takahashi, K. (2002)  
Nelson, T. W. (2003)  
Liu, W. (2004)  
Kozeschnik, E. (2005)  
Palmer, T. A. (2006)  
*No presentation* (2007)  
Tanaka, M. (2008)  
Sato, Y. S. (2009)  
Zhang, W. (2010)

Yamamoto, M. (2011)  
Park, S.H.C. (2012)  
Mayr, P. (2013)  
Noecker II, F. F. (2014)  
Morisada, Y. (2015)  
Gerlich, A. (2016)  
Mikami, Y. (2017)  
Ogura, T. (2018)  
Pouranvari, M. (2019)  
Siefert, J. A. (2020)  
Yu, Z. (2021)  
Fink, C. (2022)



**DR. JEFFREY M. RODELAS** is a Principal Member of the Technical Staff at Sandia National Laboratories in Albuquerque, NM in the metallurgy and the materials joining department. He first joined Sandia as a student intern in 2005 and became a staff member in 2012. His career in welding research began with friction stir welding process development for steels and Ni-base alloys before joining Sandia. Currently Jeff's research efforts at sandia are primarily focused on the weldability of stainless steels and titanium alloys in high energy density welding processes. Jeff is active within the NSF/ IUCRC Manufacturing and Materials Joining Innovation Center (Ma2JIC) as an industrial advisory board chair for the Materials/Microstructure/Weldability thrust area as well as local AWS and ASM chapters. He received his PhD in Welding Engineering from The Ohio State University and holds a MS (Materials Science & Engineering) and BS (Ceramic Engineering) degree from Missouri University of Science & Technology.



# AWS NATIONAL AWARD WINNERS

## SAMUEL WYLIE MILLER MEMORIAL MEDAL AWARD

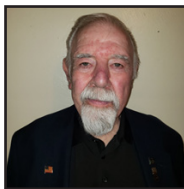
This award is sponsored by the American Welding Society to honor Samuel Wylie Miller, President during the 1921–22 years. It is awarded for meritorious achievements that have contributed conspicuously to the advancement of the art and science of welding and cutting.

### *Recipient of Award:*

Manz, A. F. (1989)  
Parks, J. M. (1990)  
Winsor, F. J. (1991)  
Dickerson, P. B. (1992)  
Webster, R. T. (1993)  
Kiser, S. D. (1994)  
Brosilow, R. (1995)  
Pickering, Jr., E. W. (1996)  
Jackman, J. W. (1997)  
Reeve, Jr., R. C. (1998)  
Alexander, Sr., L. N. (1999)  
Vilkas, E. P. (2000)  
Martinez, D. (2001)

Thomas, W. M. (2002)  
Elmer, J. W. (2004)  
Grubbs, C. E. “Whitey”  
(2005–*Posthumous recognition*)  
*No presentation* (2006)  
Cossaboom, G. E.  
(2007–*Posthumous recognition*)  
Blodgett, O. W. (2008)  
Peaslee, R. L. (2009)  
Kotecki, D. J. (2010)  
Siewert, T. (2011)

Szumachowski, E. R. (2012)  
Temple, P. I. (2013)  
Devletian, J. H. (2014)  
Crockett, D. D. (2015)  
Martukanitz, R. P. (2016)  
Yevick, E. G. (2017)  
Landon, T. (2018)  
Sparschu, T. M. (2019)  
Miller, D. K. (2020)  
Melfi, T. (2021)  
Campbell, R. D. (2022)



**JAMES J. SEKELY** learned to weld in the US Air Force in 1961, upon discharge; he served a 5-year Welder Apprenticeship at Jones & Laughlin Steel Corp. in Pittsburgh receiving his Journeyman Papers in 1969. James was hired by Schneider Inc. as a welding supervisor during the construction of the Beaver Valley Nuclear Generating Station, Unit 1 in 1971, leaving Schneider in 1989 as the Senior Corporate welding engineer. He was employed by Dick Corporation as the Manager of Welding and Quality Assurance/Control, leaving Dick Corp in 1994 and employed by Eichleay Corp. as the Manager of Welding and Quality Control from 1994 through 2002. Then incorporated in the Commonwealth of PA as Welding Services, Inc. as a Welding Consultant from 2002 through present. His committee activities include being a Member and Past Chair AWS B2, AWS B2D, AWS D9.1, 1982 through present, a member of AWS TAC, and AWS TACR at various times starting in 1994. He is also part of ASME B31.1: Main committee and the Fabrication and Exam Subcommittee from 1994 through present and the National Board Inspection Code Committee from 2002 through present. For the National Certified Pipe Welding Bureau James chaired the Technical Committee for 11 years and was a member of the Board for 19 years, retiring in 2002. He has been an AWS Auditor for the Certified Welder and Certified Fabricator program from 1994 through present and a Certified Welding Inspector from 1989 through Present (ASME, WPQ1 and WPQ2 Endorsements). He has also served as Chair of the Pittsburgh Section – 1993/94, Board 1996 through present. He became an AWS Counselor in 2007 and has received awards such as the AWS Honorary Member – 1993, AWS District Meritorious Award – 1996, AWS Distinguished Member Award – 1996, UA 449/MCA Recognition Certificate – 2002, the Pittsburgh Section’s Minnotte-Cable Award – 2003 and the National Certified Pipe Welding Bureau Certificate – 1997.



# AWS NATIONAL AWARD WINNERS

## NATIONAL MERITORIOUS AWARD

This award is sponsored by the American Welding Society and is given in recognition of good counsel, loyalty, and devotion to the affairs of the Society; assistance in promoting cordial relations with industry and other organizations; and for the contribution of time and effort on behalf of the Society.

### *Recipient of Award:*

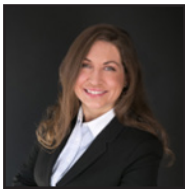
Blaisdell, R. E. (1989)  
Bohnart, E. R. (1989)  
Bertossa, D. C. (1990)  
Metzger, G. E. (1990)  
Randall, M. D. (1991)  
Walker, J. H. (1991)  
Berger, D. S. (1992)  
Fassinger, C. R. (1992)  
Gerken, J. M. (1993)  
Hemzacek, R. T. (1993)  
Berglind, W. E. (1994)  
Mattoon, R. A. (1994)  
Bartley, J. (1995)  
Huber, R. A. (1995)  
Christoffel, R. J. (1996)  
Dickinson, D. W. (1996)  
Ebert, H. W. (1997)  
Wall, N. C. (1997)  
Sulit, R. A. (1998)  
Winsand, A. O. (1998)  
Dammann, J. (1999)  
Hinrichs, J. F. (1999)  
Alley, R. L. (2000)

Temple, P. I. (2000)  
Carlson, N. M. (2001)  
Winsand, A. O. (2001)  
Bastian, B. J. (2002)  
Bovie, D. F. (2002)  
Holdren, R. L. (2003)  
Pierce, R. C. (2003)  
Kvidahl, L. G. (2004)  
Putnam, G. H. (2004)  
Castner, H. R. (2005)  
Franklin, J. R.  
    “Rusty” (2005)  
Arn, R. L. (2006)  
Pali, R. G. (2006)  
Greer, J. E. (2007)  
Wiswesser, R. K. (2007)  
Bottenfield, C. B. (2008)  
Winslow, P. D. (2008)  
Crichton, A. B. (2009)  
Leno, J. (2009)  
Dillhoff, III, J. H.  
    (2010 – *Posthumous  
    recognition*)

Richwine, R. L. (2010)  
Albrecht, B. (2011)  
Stropki, J. M. (2011)  
DeCorte, D. B. (2012)  
McCall, J. (2012)  
Crisci, J. R. (2013)  
Houston, S. V. (2013)  
Raymond, S. L. (2014)  
Lienert, T. J. (2105)  
Phillips, D. C. (2015)  
Stricker, J. (2016)  
Tumuluru, T. (2016)  
Knight, G. A. (2017)  
Perdomo, J. J. (2017)  
Miglietti, W. (2018)  
*No presentation* (2019)  
Deckrow, J. (2020)  
Witkowski, S. (2020)  
Boling, B. E. (2021)  
DeCorte, D. (2021)  
Aranmor, S. L. (2022)  
Komlos, W. (2022)



## AWS NATIONAL AWARD WINNERS



**KAREN GILGENBACH** holds a Bachelor of Science in Engineering Mechanics from Michigan State, a Master's of Science in Weld Engineering from Ohio State, an MBA through Indiana University's Kelley School of Business and a Master's of Science in Finance from Indiana University's Kelley School of Business. She has been a Certified Welding Inspector since 2006 and is a Certified Welding Supervisor as well as a Certified Robotic Arc Welder- Technician. Professionally, Karen is currently a Zone Vice President for Matheson Gas, a distributor of gas and welding supplies, where she is responsible for 36 locations in nine states and hundreds of the best team members in the business. Karen has been very active in AWS for many years. She is the Chair of the AWS D16 Committee on Robotic and Automatic Welding and is a member of the AWS Technical Advisory Committee. The AWS D16 Committee on Robotic and Automatic Welding was organized in 1985 to provide centralized source for the exchange of technical information between manufacturers, installers, and operators of robotic and automated equipment. Karen is a former Chairperson, Treasurer, Secretary and Membership Chair of the AWS Milwaukee Section, and a former board member of the Los Angeles / Inland Empire section. She co-chaired the National Robotic Arc Welding Conference from 2007 to 2017, which provided the initial funding for the John F Hinrichs Memorial Endowment. She was one of the founders of the John F. Hinrichs Memorial Endowment scholarship, which currently provides over \$20,000 annually to students pursuing weld and welding engineering degrees, as well as one of the founders of the David J Landon national endowment.



**ANDRE YOUNG** is a Key Account Manager serving Auto Tier 1 suppliers for ABB Robotics. He has over 25 years of experience in joining and automation, BSEE, a Professional Engineering License with the State of MI and a US Patent. Andre Young has been a member of the American Welding Society since the mid-1990s and has served as Treasurer since 2004. The role of Treasurer is critical in Detroit due to the size and complexity of this unique local section. Accounting methods and software have been kept up to date, meeting the changing needs of the section and national. His crowning achievement was to help make Detroit a leader in providing scholarships and grants. Awards increased from ~ \$30k in 2006, to over \$85k a year. The AWS auditor in 2019 had this to say about Andre:

“Throughout our interactions, I have observed his inclusive leadership style and ability to bring the best business practices for the benefit of the members. Moreover, I would like to highlight the exceptional integrity, accuracy, and professionalism he demonstrated during the review. Because of his leadership and unwavering commitment to the profession and AWS, Detroit Section has become an envy of excellence and a benchmark of success among all AWS Sections and Districts.”



# AWS NATIONAL AWARD WINNERS

## 2022 PAPER | ROBERT L. PEASLEE MEMORIAL BRAZING AWARD

This award is sponsored by the Wall Colmonoy Corporation and honors Robert L. Peaslee for his many years of dedicated service to the industry. This award recognizes the paper considered to be the best contribution to the science or technology of brazing published in the Welding Journal during the previous calendar year.

### *Recipient of Award:*

Ko, M. W. (1991)  
Onzawa, T. (1991)  
Suzumura, A. (1991)  
Sakamoto, A. (1992)  
Kang, S. (1993)  
Selverian, J. H. (1993)  
Camargo, P. (1994)  
Liu, S. (1994)  
Trevisan, R. E. (1994)  
Janeway, B. J. (1995)  
Timsit, R. S. (1995)  
Bird, R. K. (1996)  
Dicus, D. L. (1996)  
Hoffman, E. K. (1996)  
Humpston, G. (1997)  
Jacobson, D. M. (1997)  
Sangha, S. P. S. (1997)  
Cadden, C. H. (1998)  
Headley, T. J. (1998)  
Yang, N. (1998)  
Rabinkin, A. (1999)  
Ribaudou, A. J. (1999)  
Wenski, E. G. (1999)  
Hosking, F. M. (2000)  
Regent, J. A. (2000)  
Stephens, J. J. (2000)  
Cadden, C. H. (2001)  
Glass, S. J. (2001)  
Hosking, F. M. (2001)  
Stephens, J. J. (2001)  
Vianco, P. A. (2001)  
Walker, C. A. (2001)  
Yang, N. (2001)  
Carpenter, R. W. (2002)  
Christensen, D. T. (2002)  
Davé, V. R. (2002)  
Milewski, J. O. (2002)

Gales, A. (2003)  
Jacobson, D. M. (2003)  
Sangha, S. P. S. (2003)  
Schmid, E. (2003)  
DeLair, R. E. (2004)  
Solomon, H. D. (2004)  
Thyssen, J. R. (2004)  
*No presentation* (2005)  
*No presentation* (2006)  
*No presentation* (2007)  
Sigler, D. R. (2008)  
Schroth, J. G. (2008)  
Wang, Y-M (2008)  
Radovic, D. (2008)  
Elrefaey, A. (2009)  
Tillmann, W. (2009)  
*No presentation* (2010)  
Wang, H. (2011)  
Xue, S. (2011)  
Chen, W. (2011)  
Liu, X. (2011)  
Pan, J. (2011)  
Nasiri, A. (2012)  
Li, L. (2012)  
Kim, S. (2012)  
Zhou, Y. N. (2012)  
Weckman, D. C. (2012)  
Nguyen, T. C. (2012)  
Liu, W. (2013)  
Bachorik, P. (2013)  
Lee, N-C (2013)  
Nasiri, A. (2014)  
Weckman, D. C. (2014)  
Zhou, Y. N. (2014)  
Ekrami, A. (2015)  
Kokabi, A. H. (2015)  
Pouranvari, M. (2015)

Nasiri, A. M. (2016)  
Weckman, D. C. (2016)  
Zhou, Y. N. (2016)  
Smet, D. D. (2017)  
Grant, R. P. (2017)  
Kilgo, A. (2017)  
Kotula, P. M. (2017)  
McKenzie, B. M. (2017)  
Vianco, P. T. (2017)  
Walker, C. A. (2017)  
Busbaher, D. (2018)  
Preuss, T. (2018)  
Fu, H. (2018)  
Leone, E. (2018)  
De Smet, D. (2019)  
Grant, R. (2019)  
Kilgo, A. (2019)  
McKenzie, B. (2019)  
Vianco, P. T. (2019)  
Walker, C. A. (2019)  
Guerrero, E. (2020)  
Kilgo, A. (2020)  
McKenzie, B. (2020)  
Price, W. J. (2020)  
Vianco, P. T. (2020)  
Williams, S. (2020)  
Bo, J. (2021)  
Li, Z. (2021)  
Ma, L. (2021)  
Xu, Z. (2021)  
Yan, J. (2021)  
De Smet, D. (2022)  
Grant, R. (2022)  
Kilgo, A. (2022)  
McKenzie, B. (2022)  
Vianco, P. T. (2022)  
Walker, C. A. (2022)





## AWS NATIONAL AWARD WINNERS

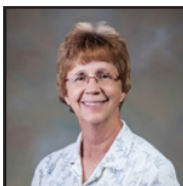
### “INTERFACE REACTIONS RESPONSIBLE FOR RUN-OUT IN ACTIVE BRAZING: PART 4”



**RICHARD GRANT** retired from Sandia National Laboratories at the end of 2021. He ran the EPMA/Microprobe Lab at Sandia for many years. During his career he enjoyed working on a variety of materials, metals, ceramics, glasses, and a wide variety of minerals. His work also included analyzing many different joining techniques; brazes, welds, glass to metal seals, etc. Mr. Grant’s work frequently involved looking at diffusion profiles and analyzing intermetallic compounds.



**DENNIS DE SMET** is an Electromechanical Technologist at Sandia National Laboratories in the Atmospheric Sciences Department (8933). He received an Associate of Applied Science from Central New Mexico Community College before being accepted into the Sandia National Laboratories Advanced Manufacturing Trades Training Program. Once completing the training program, Dennis was hired at Sandia and worked in the Advanced Prototyping S & T Department where he spent 7 years working with Low Temperature Co-Fired Ceramics, 12 years working with conventional and active brazing, materials joining in vacuum, hydrogen or inert gas environments, and heat treating, before moving into an entirely new direction, Atmospheric Sciences.



**ALICE KILGO** was a distinguished Technologist at Sandia National Laboratories for over 33 years, focusing on Metallography, Failure Analysis, and Image Analysis. She is now retired.



**BONNIE B. MCKENZIE** retired from Sandia National Laboratories as a Distinguished Technologist in the Materials Characterization and Performance department. Her career at Sandia spanned over 34 years working as a scanning electron microscopist. She enjoyed experiencing the evolution of the SEM and its associated analytical techniques while analyzing a huge array of samples from across the labs.



**DR. PAUL T. VIANCO** received a Ph.D. degree in Materials Science from the University of Rochester (New York) in 1986. He joined Sandia National Laboratories, Albuquerque, New Mexico in 1987 until his retirement as a Senior Engineer following a 35-year career there. Dr. Vianco has been involved in all aspects of Sn-Pb and Pb-free soldering technologies, including alloy and process development as well as both empirical and computational modeling approaches for predicting thermal mechanical fatigue reliability and solid-state intermetallic compound layer growth. Dr. Vianco has held several positions on the SMTA Board of Directors; he is also a Fellow of the American Welding Society and ASM, International.

**CHARLES WALKER** worked at Sandia National Laboratories.



# AWS NATIONAL AWARD WINNERS

## PLUMMER MEMORIAL EDUCATION LECTURE AWARD

This award is sponsored by the American Welding Society to recognize Fred L. Plummer’s service to the Society as President from 1952 to 1954 and Executive Director from 1957 to 1969. This award recognizes outstanding contributions to the national education lectures presented at the AWS Annual Welding Show and Convention.

### *Recipient of Award:*

Papritan, II., J.C. (1984)  
 Dato, J. E. (1985)  
 Savage, W. F. (1986)  
 Thomas, Jr., R. D. (1987)  
 Gourd, L. M. (1988)  
 Swannell, P. (1989)  
 Helzer, S. C. (1990)  
 Dickinson, D. W. (1991)  
 Sabo, R. S. (1992)  
 Bohnart, E. R. (1993)  
 Cary, H. B. (1994)  
 Pense, A. W. (1995)  
 Jacobi, M. (1996)

Long, R. E. (1997)  
 Liu, S. (1998)  
 Kielhorn, W. H. (1999)  
 Bohnart, E. R. (2000)  
 Klingman, D. (2001)  
 Lippold, J. C. (2002)  
 Knight, G. (2003)  
 May, B. (2004)  
 Levert, Sr., E. D. (2005)  
 Greer, J. E. (2006)  
 Godley, M. A. (2007)  
 Eagar, T. W. (2008)  
 Compton, J. D. (2009)

Madigan, R. B. (2010)  
 Lawrence, T. W. (2011)  
 Adonyi, Y. (2012)  
 Polanin, W. R. (2013)  
 Vetter, L. (2014)  
 Stone, R. T. (2015)  
 Burdge, S. L. (2016)  
 Cotner, D. R. (2017)  
 Baber, T. (2018)  
 Turner, D. (2019)  
*No presentation (2020)*  
 Colton, J. N. (2021)  
 Carney, J. N. (2022)

### “LOOKING BACK, WHILE LOOKING AHEAD AT THE FUTURE OF WELDING”



#### **JAMES MOSMAN**

My first welding class was part of an Ag-Mechanics program as a sophomore in high school in 1973. I worked part time as a welder during the summers until I graduated in 1976. I was in the Army from September 1976 to 1980. In Spring of 1981, I enrolled into the 9-month welding program at El Paso Trade School. I graduated from that program at the top of the class. I then moved to Odessa Texas, where I worked with several companies building various oilfield equipment. During that time, I was attending Odessa College, receiving an AAS degree. In 1997, I accepted the position of welding instructor at Odessa College where I stayed for 21 years. During that time, I moved up to Department Chair of Industrial Technology and lead welding instructor. Highlights of that position include receiving a 1.75 million Department of Labor Grant for 1.75 million in 2007, being selected for the WEMCO Image of Welding Award in the Educational Facility Category in 2008, the Employee Excellence Award in 2015 and receiving my BS degree from University of Texas Permian Basin in 2007. I have also earned my CWI and CWE certifications. Also, during that time, I was able to build the welding program from 1 instructor with 45 students my first semester to 250 students each semester and 5 instructors. We also partnered with Lincoln Electric and opened the LE Advanced Technology Center which is still in use. I retired from Odessa College in May of 2019 and moved to Cleveland, Ohio. I accepted the position of Senior Customer Training Instructor in June of 2019. In my current position, I am responsible for training and enhancing welding education for secondary and post-secondary instructors around the world. I am the lead instructor for the LEEPS and LEEPStart certification programs where I am currently responsible for both in-person and virtual workshops.





# AWS NATIONAL AWARD WINNERS

## PRIVATE SECTOR INSTRUCTOR MEMBERSHIP AWARD

This award was established by the AWS Board of Directors as a means of honoring educators in the welding community who teach in private facilities. These individuals, in the opinion of the AWS Education Committee, have advanced the knowledge of welding to their students through apprenticeship programs, internal corporate training programs, and similar nonpublic educational activities.

### *Recipient of Award:*

Weeks, M. G. (2000)  
DeFreitas, L. (2001)  
Ivy, J. H. (2001)  
Danaher, J. A. (2002)  
Green, S. (2002)  
Campbell, W. (2003)  
Grantham, J. A. (2003)  
Kolasa, Jr., J. (2004)  
Morris, J. W. (2004)  
Jones, J. J. (2005)

*No presentation* (2006)  
*No presentation* (2007)  
*No presentation* (2008)  
*No presentation* (2009)  
*No presentation* (2010)  
*No presentation* (2011)  
Trevithick, M. (2012)  
*No presentation* (2013)  
*No presentation* (2014)  
Cox, E. J. (2015)

Rolla, G. T. (2016)  
Adolphi, S. (2017)  
Sperko, W. (2017)  
Cowman, R. D. (2018)  
*No presentation* (2019)  
*No presentation* (2020)  
*No presentation* (2021)  
Grantham, J. A. (2022)



**DALE SZABLA** is currently a Sr Manufacturing Engineering Supervisor/Weld Engineer for nVent – Hoffman Enclosures in Anoka, MN. One area of responsibility in this role, is he manages the internal and external weld training program as well as providing AWS Weld Symbology training for the design engineering team worldwide. He has held positions in the past as a Technical College Instructor and a consultant for weld training and qualification. A constant advocate for the welding industry, he freely provides counseling, encouragement and mentoring to groups and individuals about the benefits of this career field and volunteers his time as a judge or speaker to activities that promote welding. Has been an active member of the AWS since 1996 and served on the Executive Committee of the Northwest Section in numerous roles. Currently holds AWS CWI, AWS CWE, and ASNT ACCP Level II credentials.



# AWS NATIONAL AWARD WINNERS

## 2022 PAPER | WARREN F. SAVAGE MEMORIAL AWARD

This award is endowed by former associates of Professor Warren F. Savage to honor his dedication and accomplishments in the field of welding metallurgy. This award recognizes the paper published in the Research Supplement of the Welding Journal during the previous calendar year that best represents innovative research resulting in a better understanding of the metallurgical principles related to welding.

### *Recipient of Award:*

- |                             |                            |                            |
|-----------------------------|----------------------------|----------------------------|
| Lee, C. H. (1989)           | Kotecki, D. J. (2001)      | Kou, S. (2012)             |
| Lundin, C. D. (1989)        | Babu, S. S. (2002)         | Limmaneevichitr, C. (2012) |
| Menon, R. (1989)            | David, S. A. (2002)        | Wei, P-S (2012)            |
| Cieslak, M. J. (1990)       | Kenik, E. A. (2002)        | Yue, X. (2013)             |
| Frank, R. B. (1990)         | Oertelt, G. (2002)         | Lippold, J. C. (2013)      |
| Headley, T. J. (1990)       | Brasher, D. G. (2003)      | Alexandrov, B. T. (2013)   |
| Eagar, T. W. (1991)         | Butler, D. J. (2003)       | Babu, S. S. (2013)         |
| Gedeon, S. A. (1991)        | Elmer, J. W. (2003)        | Caron, J. L. (2014)        |
| Goods, S. H. (1992)         | Terrill, P. E. (2003)      | Babu, S. S. (2014)         |
| Karfs, C. W. (1992)         | Brooks, J. A. (2004)       | Lippold, J. C. (2014)      |
| Baeslack, III, W. A. (1993) | Headley, T. J. (2004)      | Bundy, J. (2015)           |
| Koo, H-H (1993)             | Michael, J. R. (2004)      | Gerlich, A. (2015)         |
| Baeslack, III, W. A. (1994) | Robino, C. V. (2004)       | Najafabadi, H. I. (2015)   |
| Lin, W. (1994)              | DuPont, J. N. (2005)       | Mendez, P. F. (2015)       |
| Lippold, J. C. (1994)       | Robino, C. V. (2005)       | Lippold, J. C. (2016)      |
| Kawashiri, K. (1995)        | Michael, J. R. (2005)      | Hodgson, D. K. (2016)      |
| Ohmura, H. (1995)           | Mizia, R. E. (2005)        | Dai, T. (2016)             |
| Yoshida, T. (1995)          | Williams, D. B. (2005)     | Javernick, D. A. (2017)    |
| Yoshimoto, O. (1995)        | Cao, G. (2006)             | Lienert, T. J. (2017)      |
| Acoff, V. L. (1996)         | Kou, S. (2006)             | Liu, S. (2017)             |
| Griffin, R. D. (1996)       | Keehan, E. (2007)          | Tate, S. B. (2017)         |
| Radhakrishnan, B. (1996)    | Karlsson, L. (2007)        | Kannan, R. (2018)          |
| Thompson, R. G. (1996)      | Andrén, H-O (2007)         | Li, L. (2018)              |
| Eagar, T. W. (1997)         | Bhadeshia, H.K.D.H. (2007) | Wang, Y. (2018)            |
| Itsukaichi, T. (1997)       | Yang, Y. (2008)            | Derrien, R. (2022)         |
| O’Kane, I. (1997)           | Kou, S. (2008)             | Liu, S. (2022)             |
| Umemoto, M. (1997)          | Yang, Y. (2009)            | Sullivan, E. M. (2022)     |
| Babu, S. S. (1998)          | Dong, H. (2009)            | Zhang, L. (2018)           |
| David, S. A. (1998)         | Cao, H. (2009)             | Briand, F. (2022)          |
| DebRoy, T. (1998)           | Chang, Y. A. (2009)        | DuPont, J. (2019)          |
| Mundra, K. (1998)           | Kou, S. (2009)             | Moine, E. (2022)           |
| Fjaer, H. G. (1999)         | Nissley, N. E. (2010)      | Hamlin, R. (2019)          |
| Grong, D. (1999)            | Lippold, J. C. (2010)      | DuPont, J. N. (2020)       |
| Klokkehaug, S. (1999)       | Caron, J. L. (2011)        | Kant, R. (2020)            |
| Kluken, A. O. (1999)        | Heinze, C. (2011)          | Alexandrov, B. T. (2021)   |
| Myhr, O. R. (1999)          | Schwenk, C. (2011)         | Fink, C. (2021)            |
| Lippold, J. C. (2000)       | Rethmeier, M. (2011)       | Penso, J. A. (2021)        |
| Mills, M. J. (2000)         | Babu, S. S. (2011)         | Wang, H. (2021)            |
| Nelson, T. W. (2000)        | Lippold, J. C. (2011)      |                            |



## AWS NATIONAL AWARD WINNERS

### “CRACK-FREE 30% CHROMIUM-NICKEL ALLOY WELDING PRODUCTS FOR NUCLEAR SERVICE”



**DR. TAO DAI** received a B.S. degree in Materials Science and Engineering from University of Science and Technology Beijing, China. He received a M.S. degree in Metallurgical Engineering from RWTH Aachen University, Germany. In 2018, he received his PhD in Welding Engineering at the Ohio State University (OSU) under Professor John Lippold. His research work in the OSU were recognized by the American Welding Society with three awards: Warren F. Savage Memorial Award (2016), William Spraragen Memorial Award (2018), and Charles H. Jennings Memorial Award (2019). From 2018-2021, he worked as a postdoc researcher in the materials joining group of Oak Ridge National Laboratory (ORNL) under Dr. Zhili Feng. His papers based on the work in the ORNL have been recognized by the AWS with two awards in 2023. Dr. Dai is currently working as an assistant professor in the materials joining department of LeTourneau University. He has passion in training next generation welding engineers and has research interests in welding metallurgy, weldability test, materials characterization, and welding processes.



**DR. ZHILI FENG** leads the Materials Joining Group and is a Distinguished R&D Staff of Oak Ridge National Laboratory. He manages a multi-disciplinary team conducting both fundamental and applied R&D and technology innovations related to materials joining and allied materials manufacturing processes, for automotive, nuclear energy, fossil energy, hydrogen and renewable energy, and defense applications. A Fellow of AWS and IIW, Dr. Zhili Feng's research covers various aspects of thermal-mechanical-metallurgical behaviors of materials in materials processing. He is recognized for his work in advancing the science and technology of materials joining in a number of important areas such as integrated computational welding engineering (ICWE), application of machine learning and AI for welding process control and automation, friction stir welding and processing, proactive weld residual stress control and management, novel solid-state joining processes of dissimilar metals, and application of advanced neutron and synchrotron scattering tools to study the fundamentals of weld microstructure evolution and effects on weld properties and performance of welded structures. He is also a Joint Faculty of University of Tennessee, Knoxville. He obtained his BS and MS from Tsinghua University, and PhD from The Ohio State University in Welding Engineering.



## AWS NATIONAL AWARD WINNERS

### 2022 PAPER I WARREN F. SAVAGE MEMORIAL AWARD *(cont)*



**SAMUEL D. KISER** received his BSME from the University of Cincinnati in 1969 and has been employed by INCO Alloys International, Now Special Metals Corporation, over the last 59 years. Until 1985, Mr. Kiser worked in the Huntington, West Virginia metallurgical and welding laboratories and in technical service and marketing. In 1985 he became Product Manager and relocated to Newton, NC. He became director of technology in 2002 where he directed research and development programs and was responsible for providing commercial and manufacturing technical support. He was also responsible for the content and performance of the acclaimed “Welding Forum”, an internationally focused engineering training program. Currently, Mr. Kiser is focusing on new alloys research and development. Over the past 59 years, Mr. Kiser has been involved in all aspects of nickel alloy welding research and metallurgy where his efforts have resulted in twelve patents. He has authored more than 200 technical articles, book chapters, and technical monographs. Mr. Kiser has presented over 170 lectures for and is a Life Member of The American Welding Society (AWS). Mr. Kiser was inducted as a Fellow of AWS in 2004 and became a member of the AWS Fellows Selection Committee in 2014. He has received the AWS Samuel Wylie Miller Award, the AWS A.F. Davis Silver Medal Award for award-winning WELDING JOURNAL articles. More recently, he has been selected to receive the AWS Warren F. Savage Award for 2022.



**DR. YIYU WANG** is currently a R&D Associate Staff in the Materials Science and Technology Division at Oak Ridge National Laboratory (ORNL). Dr. Wang joined ORNL since 2018. He earned his Ph.D. degree from University of Alberta in 2018, master’s degree and bachelor’s degree from Wuhan University of Technology in 2012 and 2010. Dr. Wang’s research focuses on advanced manufacturing (welding & joining), physical metallurgy and welding metallurgy, advanced materials characterization, in-situ/ex-situ mechanical testing. Dr. Wang is an active member of many professional associations, including the AWS and ASME, by presenting technical papers and chairing sessions in conferences and seminars. Dr. Wang has authored more than 40 peer-reviewed journal papers and 30 conference papers in topics of creep-resistant steel welding, pipeline integrity, failure analysis of welded pressure vessels, and joining dissimilar metals. He is a co-recipient of the 2017 W. H. Hobart Memorial Award and the 2018 Warren F. Savage Memorial Award from the American Welding Society.



**BRIAN A. BAKER**  
I am a graduate of Marshall University (1989, 1996). I have been employed with Special Metals for 33 years, working in Research and Development for the bulk of that time. My particular areas of specialization include high temperature nickel-base alloy development and high temperature corrosion. I have also completed research and collaborated in material developments (base metals and welding products) for various industries, including oil and gas, chemical processing, and power generation. I have authored and co-authored numerous conference and journal publications. I am inventor or co-inventor of numerous patents for nickel-based materials, both granted and applied for.



# AWS NATIONAL AWARD WINNERS

## 2022 PAPER | WILLIAM SPRARAGEN MEMORIAL AWARD

This award is sponsored by the American Welding Society and honors William Spraragen, a founding member of the Society and the first Editor of the Welding Journal, serving from 1922 to 1954. It is presented for the best paper published in the Research Supplement section of the Welding Journal during the previous calendar year.

### *Recipient of Award:*

Aidun, D. K. (1989)  
Eraslan, A. H. (1989)  
Zacharia, T. (1989)  
Baeslack, III, W. A. (1990)  
Kelly, T. J. (1990)  
Mascarella, T. J. (1990)  
Eagar, T. W. (1991)  
Elmer, J. W. (1991)  
Fuerschbach, P. W. (1992)  
Knorovsky, G. A. (1992)  
Baeslack, III, W. A. (1993)  
Lippold, J. C. (1993)  
Varol, I. (1993)  
Eagar, T. W. (1994)  
Kim, Y-S (1994)  
Zacharia, T. (1995)  
Kivineva, E. I. (1996)  
Matlock, D. K. (1996)  
Olson, D. L. (1996)  
Messler, Jr., R. W. (1997)  
Orling, T. T. (1997)  
Cieslak, M. J. (1998)  
Robino, C. V. (1998)  
DuPont, J. N. (1999)  
Marder, A. R. (1999)  
Robino, C. V. (1999)  
DuPont, J. N. (2000)  
DebRoy, T. (2001)  
Elmer, J. W. (2001)  
Wong, J. (2001)  
Yang, Z. (2001)  
Landis, G. P. (2002)  
Maroef, I.S. (2002)  
Olson, D. L. (2002)  
Smith, II, R. D. (2002)  
Wildeman, T. R. (2002)  
Landau, A. (2003)

Maroef, I.S. (2003)  
Olson, D. L. (2003)  
Park, Y-D (2003)  
Matlock, D. K. (2004)  
Rathbun, R. W. (2004)  
Speer, J. G. (2004)  
Elmer, J. W. (2005)  
Palmer, T. A. (2005)  
Babu, S. S. (2005)  
Zhang, W. (2005)  
DebRoy, T. (2005)  
Marya, M. (2006)  
Gayden, X. Q. (2006)  
Cao, G. (2007)  
Kou, S. (2007)  
Anderson, T. (2008)  
Perricone, M. J. (2008)  
DuPont, J. N. (2008)  
Marder, A. R. (2008)  
Young, G. E. (2009)  
Capobianco, T. (2009)  
Penik, M. A. (2009)  
Morris, B. W. (2009)  
McGee, J. M. (2009)  
Noecker, II, F. F. (2010)  
DuPont, J. N. (2010)  
Tordonato, D. (2011)  
Madeni, J. C. (2011)  
Liu, S. K. (2011)  
Babu, S. S. (2011)  
Mendez, P. F. (2011)  
Sowards, J. W. (2012)  
Liang, D. (2012)  
Alexandrow, B. T. (2012)  
Frankel, G. S. (2012)  
Lippold, J. C. (2012)  
Atabaki, M. M. (2013)

Chun, E. J. (2014)  
Hayato, B. (2014)  
Terashima, K. (2014)  
Saida, K. (2014)  
Nishimoto, K. (2014)  
Fusner, E. W. (2015)  
Hope, A. T. (2015)  
Lippold, J. C. (2015)  
Amata, M. A. (2016)  
Babu, S. S. (2016)  
Bundy, J. C. (2016)  
Chai, X. (2016)  
Chen, S. (2016)  
Kou, S. (2016)  
Zhang, C. (2016)  
Zhang, F. (2016)  
Carlton, H. D. (2017)  
Elmer, J. W. (2017)  
Vaja, J. (2017)  
Dai, T. (2018)  
Lippold, J. C. (2018)  
Kou, S. (2019)  
McCarthy, J. (2019)  
Thompson, K. (2019)  
Yu, P. (2019)  
Tanaka, M. (2020)  
Tashiro, S. (2020)  
Nguyen, A.V. (2020)  
Wu, D. (2020)  
Ji, C. (2021)  
Murugan, S.P. (2021)  
Park, Y-D. (2021)  
Vijayan, V. (2021)  
Hintze Cesaro, A. (2022)  
Mendez, P. F. (2022)





# AWS NATIONAL AWARD WINNERS

## 2022 PAPER | WILLIAM SPRARAGEN MEMORIAL AWARD *(cont)*

### “EFFECT OF CARBON ON STRESS-RELIEF CRACKING SUSCEPTIBILITY OF T23 STEEL”



**XIAN-HONG LAI** Xian-Hong Lai holds master’s degree from University of Science & Technology Beijing, and now is a senior engineer at Dongfang Boiler Group CO., Ltd in China. His research interests include application and standardization of metallic materials used for boiler and pressure vessels.



**PROFESSOR XUE WANG** is Professor in the School of Power and Mechanics at the Wuhan University, China, where he has taught manufacturing and welding engineering and related subjects. His research focuses on the welding metallurgy and consumables for advanced heat resistant steels. He has published more than 60 peer-reviewed journal papers and holds 32 patents, including one U.S. patent and two Japan patents. He is a member of the Welding Branch of CMES (Chinese Mechanical Engineering Society) and the vice chair of the Power Station Welding Committee, CSEE (Chinese Society for Electrical Engineering).



**ZHANG WEI** is a Professorate Senior Engineer in the Process Research and Development of Dongfang Boiler Co., Ltd in China. He has more than 20 years of experience in the manufacturing, production control, and product quality reliability of coal-fired power generation boilers. His work focuses on the development of welding technology for coal-fired power generation boilers, the construction of digital workshops, intelligent manufacturing, and more. He has 13 authorized invention patents.



**DR. LI YONG** holds master’s and PhD degrees from Wuhan University in China. He worked at Datang Boiler Pressure Vessel Inspection Center Co. Ltd. as a researcher from 2019 to 2023. He has 15 published papers and 5 patents. His research has focused on welding and joining of heat resistant steel, microstructure evolution and mechanical properties degradation of heat resistant steel, and alloy adjusting of heat resistant steel.



**DR. DONGDONG ZHANG** holds master’s degrees from Henan university of science and technology and PhD degrees from Wuhan University in China. He has 8 published papers and two patents. His research has focused on the brazing connection of dissimilar difficult to weld steel, spot welding, and reheat cracking of heat-resistant steel.



# AWS NATIONAL AWARD WINNERS

## R. D. THOMAS MEMORIAL AWARD

This award was originally sponsored by the Arcos Co. and its president, R. D. Thomas, Jr. It honors the late R. D. Thomas, an AWS charter member, and the AWS Representative to the first organization meeting of the International Institute of Welding (IIW). This award is presented to a member of the American Council of IIW or to an AWS member who has made a substantial contribution to the activities of the IIW.

### *Recipient of Award:*

Long, R. E. (1989)  
Edwards, G. R. (1990)  
Johnson, C. A. (1991)  
Culbertson, R. P. (1992)  
Ramsey, P. W. (1993)  
Olson, D. L. (1994)  
Bertossa, D. C. (1995)  
Siewert, T. A. (1996)  
Kennebeck, M. E. (1997)  
Brown, K. L. (1998)  
Fink, D. A. (1999)  
Rabinkin, A. (2000)

Ziegenfuss, H. G. (2001)  
Prager, M. (2002)  
Dallam, C. (2003)  
Howden, D. G. (2004)  
Dong, P. (2005)  
Mustaleski, Jr., T. M. (2006)  
Shaw, Jr., R. E. (2007)  
Levert, Sr., E. D. (2008)  
Miglietti, W. A. (2009)  
David, S. A. (2010)  
Milewski, J. (2011)  
Elmer, J. W. (2012)

Melfi, T. (2013)  
Lippold, J. C. (2014)  
Gould, J. E. (2015)  
Miller, D. R. (2016)  
Conrardy, C. (2017)  
Hochanadel, P. W. (2018)  
Tumuluru, M. (2019)  
Kautz, D. (2020)  
Grewell, D. (2021)  
Liu, S. (2022)



**DR. ZHILI FENG** leads the Materials Joining Group and is a Distinguished R&D Staff of Oak Ridge National Laboratory. He manages a multi-disciplinary team conducting both fundamental and applied R&D and technology innovations related to materials joining and allied materials manufacturing processes, for automotive, nuclear energy, fossil energy, hydrogen and renewable energy, and defense applications. A Fellow of AWS and IIW, Dr. Zhili Feng's research covers various aspects of thermal-mechanical-metallurgical behaviors of materials in materials processing. He is recognized for his work in advancing the science and technology of materials joining in a number of important areas such as integrated computational welding engineering (ICWE), application of machine learning and AI for welding process control and automation, friction stir welding and processing, proactive weld residual stress control and management, novel solid-state joining processes of dissimilar metals, and application of advanced neutron and synchrotron scattering tools to study the fundamentals of weld microstructure evolution and effects on weld properties and performance of welded structures. He is also a Joint Faculty of University of Tennessee, Knoxville. He obtained his BS and MS from Tsinghua University, and PhD from The Ohio State University in Welding Engineering.





# AWS NATIONAL AWARD WINNERS

## ELIHU THOMSON RESISTANCE WELDING AWARD

This award is sponsored by the Resistance Welding Manufacturing Alliance and was established in conjunction with the 100th anniversary of the invention of resistance welding. This award is presented for an outstanding contribution to the technology and application of resistance welding, including equipment innovations, unique applications in production, a paper published in the Welding Journal or other prestigious publication, or other activity of merit.

### *Recipient of Award:*

Cooper, J. H. (1989)  
Schueler, A. W. (1990)  
Deffenbaugh, J. F. (1991)  
Murto, L. J. (1992)  
Collom, C. J. (1993)  
Thorne, J. P. (1994)  
Beneteau, D. J. (1995)  
Roth, D. K. (1996)  
Nichols, J. (1997)  
Green, E. A. (1998)  
Simmons, W. P. (1999)  
Cuff, R. G. (2000)

Morrissey, J. P. (2001)  
Sant, J. M. (2002)  
Snow, Sr., T. J. (2003)  
Matteson, R. B. (2004)  
Hofman, Jr. R. S. (2005)  
Lee, S. L. (2006)  
Johnston, H. D. (2007)  
White, Sr., R.  
(2008-*Posthumous Recognition*)  
Moss, L. E. (2009)  
Beneteau, D. M. (2010)

Brafford, W. (2011)  
Tumuluru, M. (2012)  
Hirsch, R. B. (2013)  
Gould, J. E. (2014)  
DeCorte, D. B. (2015)  
Maatz, Jr. D. F. (2016)  
Siehling, M. (2017)  
Karagoulis, M. J. (2018)  
Cohen, R. (2019)  
Wei, P.S. (2020)  
Snow, Jr., T. (2021)  
Kimchi, M. (2022)



**DONALD SPINELLA** earned his bachelors and master’s in electrical engineering from Case Western Reserve University in Cleveland, OH. Recently retired from the Arconic (formerly Alcoa) Technical Center, he is a specialist in welding, joining and application development on aluminum intensive products. He has traveled globally and worked with customers covering the automotive, commercial transportation and aerospace industries. His work experience spanned troubleshooting production spot welding cells to managing a joining research laboratory. During his many years at Alcoa/Arconic, Mr. Spinella was responsible for resistance welding research and development activities on aluminum and dissimilar materials. One of his career highlights was co-inventing the patented Resistance Spot Riveting (RSR™) process and working with a multi-company team on the rivet family maturation and novel delivery system. RSR enables joining of aluminum to steel or composites leveraging existing resistance spot welding equipment, increasing manufacturing flexibility while providing best in class strength. He has received 18 U.S. patents, the majority of which are in resistance welding. Mr. Spinella has published numerous research papers, including two AWS Welding Journal articles along with presentations at a variety of industry conferences such as Automotive Circle, GALM, SAE, Aluminum Association and AWS. He now consults on joining and welding.



# AWS NATIONAL AWARD WINNERS

## GEORGE E. WILLIS AWARD

This award is sponsored by The Lincoln Electric Company to honor George E. Willis. It is presented to an individual for promoting the advancement of welding internationally, by fostering cooperative participation in areas such as technology transfer, standards rationalization, and promotion of industrial good will.

### *Recipient of Award:*

Thomas, Jr., R. D. (1992)  
Ziegenfuss, H. G. (1993)  
Timerman, R. (1994)  
Kotecki, D. J. (1995)  
Bertossa, D. C. (1996)  
Kvidahl, L. G. (1997)  
Siewert, T. (1998)  
Ramsey, P. W. (1999)  
Howden, D. G. (2000)  
Bohnart, E. R. (2001)  
Long, R. E. (2002)

Sperko, W. J. (2003)  
Cable, Sr., H. E. (2004)  
Horikawa, K. (2005)  
Fink, D. A. (2006)  
Quintino, L (2007)  
Tsai, C-L (2008)  
Mustaleski, Jr. T. M. (2009)  
Scotchmer, N. (2010)  
Sindel, A. W. (2011)  
Chin, B. A. (2012)  
Miller, D. K. (2013)

Bernasek, M. (2014)  
Shaw, Jr. R. J. (2015)  
Rager, D. D. (2016)  
Perdomo, J. J. (2017)  
Davis, A. (2018)  
*No presentation* (2019)  
Melfi, T. (2020)  
Henson, R. M. (2021)  
DeCorte, D. (2022)



**THOMAS A. FLOHN** graduated from Cleveland State University with a Bachelor' degree in Mechanical Engineering in 1983. He began his career in the welding industry by joining Lincoln Electric's Sales Engineering Training Program. With several postings within the United States, he began his international work in Mexico, assisting customers and acquisition companies with education and application technology transfer to improve welding quality and productivity. After completing several US domestic management assignments and Lincoln's International Business Development Program Mr. Flohn was promoted to Vice President of Sales & Marketing - Asia, based in Singapore. In 2005 he was promoted to President of Asia Pacific, where he was responsible for expanding Lincoln Electric's manufacturing and commercial activities, including the development of several joint ventures and manufacturing facilities across the Asia Pacific region. In 2010 he was promoted to President of EMEAR based in Barcelona, Spain. Thomas returned to the USA in 2014 and continued his international responsibilities as President of Lincoln's Asia Pacific Region, retiring from Lincoln Electric in March 2023 as President of International Welding for Lincoln Electric. During his career Thomas demonstrated his passion for and dedication to the art and science of welding, supporting the development and advancement of many fabricators and industry personnel, as well as product and process development.

The American Welding Society is the worldwide authority in the development of standards, certifications and educational programming for the welding community. We are committed to connecting the welding industry to our extensive collection of resources, informing our members of technological advancements, and developing the next generation of welding professionals.