



C-IX: Behavior of Metals subject to Welding

Draft Agenda of C-IX, Annual Assembly 2025

IX-2896-2025

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Venue

Room Ex-Novio 1
Centro Congressi Porto Antico
Via Magazzini del Cotone, 59
16128 Genova – Italy

Meeting Schedule

June 23 (Monday)	14:00 ~ 14:20	Opening session
	14:20 ~ 18:00	IX-L meeting
June 24 (Tuesday)	14:00 ~ 15:45	IX-NF meeting
	16:15 ~ 18:30	IX-AM meeting
June 25 (Wednesday)	14:00 ~ 17:50	IX-H meeting
	17:50 ~ 18:00	Summary and Closing

Intermission and coffee break: 15:45~16:15

ANTITRUST STATEMENT(draft)

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- allocate customers or territories;
- hinder or limit a competitor or potential competitor's operations;
- unreasonably to restrain business activity; or
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Monday, June 23, 2025

I. Welcome and Administration (Chair: Dr. Hee Jin KIM, vice-Chair: Prof. Koda Kadoi)

1. Opening of the meeting
2. Apologies
3. Approval of Agenda (IX-2896-2025)
4. Approval of MoM
 - 2024 AA meeting (IX-2863-2024)
 - 2025 Intermediate meeting (IX-2865-2025)

II. Technical Presentation of sub-Commission IX-L: *Low alloy steel welds* (Chair: Prof. Nobert Enzinger)

1. IX-2866-2025: Rolling Contact Fatigue (RCF) and wear behavior of different plasma added filler metals, *M. Moschinger, M. Hochrainer, J. Domitner, N. Enzinger*
2. IX-2867-2025: Improving Hot tensile and Impact toughness of multi-pass weld metal of 460 MPa Fire and Seismic resistant steel, *S. Nellikode, S. Lee, Y.-S. Jeong, H. Park, Y.-D. Park*
3. IX-2868-2025: Formation of retained austenite in the heat-affected zone of thermomechanically controlled processed high-strength steel: In-situ observation and quantification, *Daniel Schrittwieser, Thomas Willidal, Oleksandr Glushko, Ronald Schnitzer*
4. IX-2869-2025: Novel interlayer-adhesive hybrid joining technique for resistance spot welding of dissimilar aluminium-steel sheet materials, *P. Ravishankar, E. Sullivan, O. Andersson, K. Trydell, H. Koivuluoto, K.-A. Persson*
5. IX-2870-2025: Enhanced tensile and impact properties of high strength low alloy steels and ultra-high heat input welds implemented by microalloying, *S. Yoo, Y. Lee, B. Moon, D.-G. Nam and N. Kang*
6. IX-2871-2025: Effect of rotating arc on mechanical properties and microstructural characteristics of gas metal arc welded high strength low alloy (HSLA) steel joints, *S. MALARVIZHI, V. BALASUBRAMANIAN, N. SANKAR and A. HAFEEZUR RAHMAN*

7. IX-2872-2025: CTOD examination of physically simulated heat-affected zones in S500 shipbuilding steel welds, *M. Gáspár, J. Kovács, R. Sisodia, J. Sainio, H. Tervo, V. Javaheri, A. Kaijalainen, J. Lukács*

8. IX-2873-2025: New insights into the distribution of microstructural features and the heterogeneity of mechanical properties in the multipass heat-affected zone of 9Ni steel, *Pedro P.N. Maia, Émerson M. Miná, Giovani Dalpiaz, Ricardo R. Marinho, Marcelo T.P. Paes, Marcelo F. Motta, Hélio C. de Miranda, Cleiton C. Silva*

9. IX-2874-2025: Computational optimization of multiple reheat tempering in high strength steel wire-arc directed energy deposition, *N. Max Vega and Dr. Boian Alexandrov*

Tuesday, June 24, 2025

III. Technical Presentation of sub-Commission IX-NF: *Non-ferrous materials* (Chair: Prof. Jean P. Bergman)

1. IX-2875-2025: The Impact of Surface Topology on Joint Formation and Weld Properties of Copper-Aluminium Joints During Ultrasonic Spot Welding, *Danka Labus Zlatanovic et al., TU Ilmenau, Germany*

2. IX-2876-2025: Optimization of beam wobbling for enhanced mechanical properties of Al-Cu laser lap joints, *Seong Min Yun et al.*

3. IX-2877-2025: Dissimilar Joining of AZ31B and copper coated Ti-6Al-4V alloys using arc-based welding process: A preliminary analysis, *Lucky and S Aravindan*

4. IX-2878-2025: Experimental investigation of weldability of Al6063T6 using Pulse MIG Welding, *Ajai Kumar Pathak, Ravi Pratap Singh Pal*

5. IX-2879-2025: Effects of pre-weld treatment and laser metal deposition of AlSi10Mg-Er-Zr powder on weldability of L-PBF AlSi10Mg alloys, *Li Cui, Jingchuan Li, Zhaotong Li, Zhenfu Shi, Xingye Guo, Xu Wu, Dingyong He, Qing*

IV. Technical Presentation of sub-Commission IX-AM: *Metallurgy of AM* (Chair: Prof. Peter Mayr)

1. IX-2880-2025: Smart Wire Arc Additive Manufacturing with Advanced Temperature Control and In-Situ Heat Treatment for Improved Part Quality, *Thomas Reindl, Nico Hempel, Peter Mayr*

2. IX-2881-2025: On the fracture toughness of the industrial fillers ER5183 and ER2319 produced by wire-arc directed energy deposition, *Mathias Silmbroth, Norbert Enzinger, Thomas Klein, Bibek K. Shah, Bernd Gludovatz*

3. IX-2882-2025: Experimental Investigation on the Interface Properties of DED-Arc Plasma Deposition of Hybrid Aluminium Alloys, *Ziad El Sayed, Stefan Rotzsche, Julius Arnhold, Peter Mayr*
4. IX-2883-2025: Microstructure and mechanical properties of hybrid additively manufactured aluminum structures for hydrogen transportation applications, *Florian Pixner, Florian Mayrhofer, Matheson Graham, Talha Cakmak, Michael Stodt, Thomas Klein*
5. IX-2896-2025: Model-based parameter adjustment for geometric precision in functionally graded additive manufacturing with Plasma Metal Deposition, *Robert Rimpl, André Hälsig, Kevin Hoefer, Jonas Hensel*
6. IX-2884-2025: Feasibility Study on Wire Arc Additive Manufacturing (WAAM) for Shipbuilding Industry, *Youngchai Lee, Ju-yeon Won, Jaehee Lee*
7. IX-2885-2025: Assessment of thermophysical properties for modeling of welding and additive manufacturing, *Nitheesh Kumar R, and Patricio F. Mendez*

Wednesday, June 25, 2025

V. Technical Presentation of sub-Commission IX-H: *Weldability of stainless and nickel base alloys* (Chair: Dr. Elin M. Westin)

1. IX-2886-2025: On the precipitation of secondary phases in duplex stainless steel weldments. *S. Wessman, E.M. Westin, S. Hertzman*
2. IX-2887-2025: Use of computational thermodynamics to optimize the solution annealing treatment for super duplex stainless steel manufactured by laser beam powder bed fusion. *A.D. Gandhi, M. Neikter, B. Axelsson, M.A. Valiente Bermejo*
3. IX-2888-2025: Enhancing microstructural analysis: Best practices for preparing duplex stainless steel welds and additive manufacturing deposits. *E.M. Westin, J.Y. Jonsson, K.C. Riffel, M.M. Bos, C. Goulas, A.J. Ramirez*
4. IX-2889-2025: Influence of solution annealing on the hot ductility behavior of new Ni-based superalloy G27. *A. Ariaseta, F. Hanning, J. Andersson, O. Ojo*
5. IX-2890-2025: Instrumentation of the hot cracking phenomena in iron based hard facing weld NOREM02. *M. Moor, N. Tardif, D. Nelias, J. Courbon, M. Yescas*
6. IX-2891-2025: Relationship between grain boundary characteristic and liquation cracking susceptibility of alloy 625. *K. Kadoi, Y. Nakamori, K. Yamada, T. Osuki*
7. IX-2892-2025: Heat-affected zone solid-state cracking in new Ni-based superalloy VDM Alloy 780. *A. Ariaseta, F. Hanning, J. Andersson, O. Ojo*

8. IX-2893-2025 Deformation capacity indicators as a quantitative criterion for weld joint resistance to hot crack formation during fusion welding of Nickel-based superalloys, Oleksandr Yarovytsyn, Mykola Cherviakov, Hanna Zviahintseva, Ivan Volosatov, Heorhii Khrushchov, Yurii Nikitenko

9. IX-2894-2025: Technical Challenges and Pathways for Composition and Microstructural Design in Additively Manufactured Ni-Based Superalloys, *H.-U. Hong, T.-G. Kim, A.-R. Lee, J. Lee, P. Lours, S. Biamino, B.S. Lee*

10. IX-2895-2025: Thermal modelling in high-deposition-rate laser directed energy deposition process. *E. A. Bonifaz, A. Czekanski*

VI. Summary and Others

1. Summary of technical presentation

- *WitW* recommendation

2. Administrative matters

- Resolutions

3. Next meetings

- 2026 Intermediate Meeting
- 2026 AA meeting

Note: The list of papers given above is not the order of presentation in AA. It will be determined by sub-Commission Chairs in due course.