



SSTT 2025

16. - 18. September 2025, Freiberg, Germany
7th International Small Sample Test Techniques Conference



Conference Program

Monday, 15. September 2025

18:00 - 22:00	Come Together, Hotel Kreller, Buffet and Drinks
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Tuesday, 16. September

09:00 - 10:00	Registration, Coffee & Snacks
10:00 - 10:30	Opening: B. Kiefer, M. Abendroth, R. Hurst
10:30 - 12:00	Session 1: SPT Tensile and Fracture, Chairman: R. Hurst
	L.F.M. Almeida, J.G.F. Peres, M.W. Braun, B.S.C. Cunha, W.W. Bose Filho and R.P.G. Moura <i>Fracture Toughness Evaluation from Small Punch Tests on Notched Specimens Optimized via FEM</i>
	D. Omacht, P. Dymáček, K. Paradowski <i>Advanced Small-Scale Testing Methods for Enhancing the Safety of Power Plant Components</i>
	C. Soundararajan, J. Rantala, A. Nurmela, and E. Huttunen-Saarivirta <i>Gaseous hydrogen embrittlement behavior of API-X70 pipeline steel investigated using in-situ small punch test</i>
12:00 - 13:30	Lunch (Mensa)
13:30 - 15:00	Session 2: SPT Tensile and Fracture, Chairman: P. Dymáček
	S. Vishal and R.V. Prakash <i>Numerical Investigation of a Novel Notch Configuration for Fracture Toughness Evaluation Using Small Punch Test Specimens</i>
	N. Hiyoshi <i>Multiaxial Creep Experiments using Miniature Cruciform Specimens</i>
	S.A. Patil, S. Prüger, S. Roth, B. Kiefer <i>A modular UEL framework for hydrogen-enhanced, ductile damage modeling</i>
15:00 - 15:30	Coffee Break (ZeHS)
15:30 - 17:00	Session 3: SPT Aggressive Environments, Chairman: C. Rodríguez
	G. Álvarez, S. Sampayo, S. Otero and C. Rodríguez <i>Application of the Small Punch Test to support the development of Hydrogen-compatible steels</i>
	P. Baran, M. Nowak and J. Krawczyk <i>Assessment of Material Degradation in a Boiler Component Deformed Under Service Conditions Based on Small Punch Test and Acoustic Emission results</i>
	S. Otero, S. Sampayo, G. Álvarez, C. Rodríguez <i>Hydrogen embrittlement of structural steels by SPT: Comparison between hydrogen gas and electrochemical environment</i>
19:00 - 22:00	Welcome Reception (Schwanenschlösschen)



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Wednesday, 17. September 2025

08:30 - 10:00	Session 4: SPT Advanced Materials / SPT Creep, Chairman: R. Prakash
	T.S. Abdullah, R.J. Lancaster, C.E. Bevan, M. Ritchie, S. Mehraban, N.P. Lavery <i>Influence of Chromium Content on the Mechanical Properties of a High-Entropy Alloy</i>
	P. Dymáček, J. Svoboda, D. Bártková, M. Rollet and D. Omacht <i>Small punch testing of the newly developed ODS nanocomposite</i>
	R. Schirmer, S. Roth, M. Abendroth, B.Kiefer <i>A novel creep law tailored for extrapolation and its application to 2.4856</i>
10:00 - 10:30	Coffee Break (ZeHS)
10:30 - 12:00	Session 5: Alternative Miniaturized Test Methods, Chairman: M. Abendroth
	T. Lube, M. Staudacher <i>The Ball-on-Three-Balls test and its variants: challenges and new developments in biaxial strength testing of ceramics</i>
	M. Staudacher, T. Lube <i>The Ball-on-Three-Balls test and its variants: challenges and new developments in biaxial strength testing of ceramics</i>
	Z. Xia, K. Guan <i>A modified Weibull stress model for prediction of cleavage fracture in small punch test specimens</i>
12:00 - 13:00	Lunch (Mensa)
13:00 - 14:30	Visit Terra Mineralia (Schloss Freudenstein)
14:30 - 16:00	Session 6: Standardization / Alternative Test Methods, Chairman: S. Komazaki
	K. Guan <i>Progress of Small Punch Test and Standardization in China</i>
	K.L. Parker, R.J. Lancaster and T. Jones <i>Characterisation of Transition Welds Manufactured using Laser Powder Bed Fusion (LPBF)</i>
	J.G F. Peres, D.S. Freitas, L.F.M. Almeida, D.C.F. Ferreira, R.P.G. Moura, R.V. Arencibia <i>Charpy Transition Curve Analysis and Sub-Size Specimen Correlation for Steel Wires in Flexible Pipes</i>
16:00 - 16:30	Coffee Break (ZeHS)
16:30 - 18:00	Session 7: Numerical Approaches, Chairman: D. Omacht
	P. Konopík, M. Uhlík, and M. Rund <i>Experimental Approach to Material Model Calibration Using Miniature Specimens under Complex Stress States</i>
	C. Li, J.R. Zhong and K.S Guan <i>Research on Platform Impact Energy Method of Small Sample Associated with Standard Sample Based on Machine Learning</i>
	E.D. Valadez, L.A. Alcaraz, I.A. Navarrete, J.M. Prado and E.L. Vargas <i>Determination of Johnson-Cook Parameters Using Neural Networks Trained with Small Punch Test (SPT) and Impulse Excitation Technique (IET) Data for Stress-Strain Modeling of AISI 4140 Steel</i>
19:00 - 22:00	Conference Dinner (Ratskeller)



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Thursday, 18. September 2025

08:30 - 10:00	Session 8: Alternative Test Methods, Chairman: G. Kaishu
	K. Horii, T. Itoh, M. Sakane and L. He <i>Verification of Creep Constants in Norton's Law for High Chromium Steel by Indentation Creep Testing</i>
	T. Itoh and M. Sakane <i>Creep Properties of High Temperature Materials in Miniature Creep Testing</i>
	K.J. Samuel, N.C. Barnard, M. Jones, C.P. Heason and R.J. Lancaster <i>Directed Energy deposition repair of traditionally forged gas turbine engine components with Alloy 718Plus additive material</i>
10:00 - 10:30	Coffee Break (ZeHS)
10:30 - 12:00	Session 9: Alternative Test Methods, Chairman: M. Abendroth
	A. Kite, H. Wilcox <i>Comparison of small-scale mechanical test techniques for the examination of irradiated material</i>
	S. Komazaki, M. Kamaya, C. Hisaka and A. Nitta <i>Fatigue Strength and Crack Propagation Assessment by Small Bulge Fatigue Test</i>
	R. V. Prakash, Z. Wei <i>Static and fatigue property assessment of SS316L cold spray coating on SS316L substrate through ball indentation testing</i>
12:00 - 13:30	Lunch (Mensa)
13:30 - 15:00	Session 10: Lab-Tour
	Name <i>Title</i>
	Name <i>Title</i>
	Name <i>Title</i>
15:00 - 15:30	Closing



