

Agenda

Sunday June 10th

17:00 – 18:00	Registration
18:00 – 21:00	Dinner and get together

Monday June 11th

08:15 – 08:40	Registration
08:40 – 09:00	Welcome and introduction
09:00 – 10:00	Oral session 1: Soot Properties
09:00	A new approach for in situ soot size distribution measurement based on spectrally resolved light scattering <i>M. Bouvier, J. Yon, G. Lefevre, F. Grisch</i>
09:20	Insights on laser-baked soot <i>F. Migliorini, S. De Iuliis, R. Dondè, M. Commodo, P. Minutolo, A. D'Anna, L. Ferrero</i>
09:40	Raman spectroscopy on soot produced from a mini-cast soot generator: impact on structure from heating in air and nitrogen up to 900°C <i>K. C. Le, S. Török, T. Pino, P.-E. Bengtsson</i>
10:00 – 10:20	Discussion about future interlab comparison (to be continued during poster session 2) Raphael Mansmann
10:20 – 10:50	Coffee break
10:50 – 12:00	Oral session 2: Technique Extensions & LII Process Details
10:50	LII and MAE measurements in a laminar diffusion flame to assess the ISF database consistency <i>B. Franzelli, M. Roussillo, P. Scoufflaire, J. Bonnetty, R. Jalain, T. Dormieux, S. Candel, G. Legros</i>
11:10	Coupling of cavity-ring-down extinction and laser induced incandescence to determine soot volume fractions in a nucleation and a sooting premixed flames <i>P. Desgroux, C. Betrancourt, X. Mercier, F. Liu</i>

11:30	LII particle-size imaging with an ultra-high-speed CMOS camera <i>E. Cenker, S. Skeen, Y. Chen, D. Richardson, C. R. Shaddix, D. R. Guildenbecher</i>
11:45	Turbulent flame LII particle sizing via ultra-high-speed imaging <i>Y. Chen, D. R. Richardson, E. Cenker, B. R. Halls, S. Skeen, C. Shaddix, D. R. Guildenbecher</i>
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12:00 – 13:20	Lunch
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13:20 – 14:40	Discussion session 1
13:20	Discussion 1: Determination of key parameters for LII Per-Erik Bengtsson & Eric Therssen
14:00	Discussion 2: Supplementary and combined techniques Emre Cenker & Jérôme Yon
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14:40 – 15:10	Coffee break
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15:10 – 16:30	Oral session 3: New Technical Approaches & Applications I
15:10	Thermographic and two-phase PIV based on LII signal from submicron black particle tracers <i>L. Fan, D. McGrath, H. Zhong, S. Hochgreb</i>
15:30	Laser induced incandescence (LII) using a long-pulsed fibre laser for in-situ study of soot in flames <i>R. Roy, Gordon Humphries, J.D. Black, I.S. Burns</i>
15:50	Two-dimensional LII for in-situ soot characterization of propane flames and influence of additives in a 100 kW oxy-fuel furnace <i>J. Simonsson, M. Mannazhi, A. Gunnarsson, D. Bäckström, K. Andersson, P.-E. Bengtsson</i>
16:10	Investigation of soot formation in a novel diesel fuel burner <i>N. Palazzo, M. Kögl, L. Zigan, F.J.T. Huber, S. Will</i>
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16:30 – 18:00	Free afternoon
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18:00 – 19:30	Dinner
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19:30 – 23:00	Poster session 1
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19:30 – 20:30	Advisory committee closed meeting
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Tuesday June 12th

09:00 – 10:00	Oral session 4: Modelling & Evaluation
09:00	A calibration strategy for planar laser-induced incandescence measurements at increased pressure <i>R. Hedef, K.P. Geigle</i>
09:20	Effect of detection wavelengths on soot volume fraction measurements using auto-compensating (two-color) LII <i>F. Liu, G.J. Smallwood</i>
09:40	Can soot primary particle size distributions be determined using laser-induced incandescence? <i>F.J. Bauer, K.J. Daun, F.J.T. Huber, S. Will</i>

10:00 – 10:30	Coffee break
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10:30 – 11:50	Discussion session 2
10:30	Discussion 3: Pulsed and CW LII: modeling, evaluation and unresolved questions <i>Kyle Daun & Raphael Mansmann & Joel Corbin</i>
11:10	Discussion 4: Non-soot LII <i>Christoph Schulz</i>

12:00 – 13:30	Lunch
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13:30 – 14:30	Oral session 5: LII on Engineered Particles
13:30	Predicting the heat of vaporization of iron at high temperatures using TiRe-LII and Bayesian model selection <i>T. A. Siphens, S. J. Grauer, P. J. Hadwin, K. J. Daun</i>
13:50	Transition from laser-induced incandescence (LII) to laser-induced breakdown spectroscopy (LIBS) on elemental nanoparticles <i>J. Menser, K.J. Daun, T. Dreier, C. Schulz</i>
14:10	Laser-induced incandescence on metallic nanoparticles: Investigating effect of plasma thermal bremsstrahlung emission on peak temperature pyrometry inference <i>S. Talebi Moghaddam, K. Daun</i>

14:30 – 15:00	Coffee break
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15:15 – 18:00	Trip to Monastery Andechs with guided tour
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17:30 – 20:00	Banquet / Dinner (Andechs)
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20:30 – 23:00	Poster session 2
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Wednesday June 13th

09:00 – 09:40	Discussion session 3
09:00	Discussion 5: Emitted and ambient aerosols Greg Smallwood & Francesca Migliorini

09:40 – 10:10	Coffee break
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10:10 – 11:30	Oral session 6: Emitted and ambient aerosols / Applications II
10:10	SP2-XR: The Next Generation of Single Particle Black Carbon Instruments <i>A. Attwood, H. Schulz, G. Granger, M. Zanatta, A.B. Herber, D. Baker and R. Gerdes</i>
10:30	Method and application of ambient black carbon mixing state measurements with the Single Particle Soot Photometer (SP2) <i>R. L. Modini, J. Yuan, M. Zanatta, T. Müller, B. Wehner, and M. Gysel</i>
10:50	Laser-based experimental investigation on soot evolution during coal combustion in O ₂ /N ₂ and O ₂ /CO ₂ conditions <i>J. Wu, L. Chen, P.-E. Bengtsson, J. Zhou, J. Zhang, X. Wu, K. Cen</i>
11:10	Laser-induced incandescence in dense hot plasma <i>S. Yatom, A. Khrabry, J. Bak, J. Mitrani, V. Vekselman, I. Kaganovich, Y. Raitses</i>

11:30 – 12:00	Summary and closing remarks
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12:00 – 13:30	Lunch and farewell, optional travel to Erlangen or Stuttgart
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18:00 – 20:00	Optional dinner in either Erlangen or Stuttgart (Depends on choice of labtour)
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Thursday June 14th

09:00 – 12:00	Optional labtour at the Institute of Engineering Thermodynamics in Erlangen or the German Aerospace Center in Stuttgart.
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Posters

1	Muhammad Asif	Determination of optical properties of non-soot nanoparticles generated by microwave plasma via line-of-sight attenuation (LOSA)
2	Simon Aßmann	Investigation of soot formation in 2D by combined multi-angle light scattering and laser-induced incandescence employing a shielding approach
3	Emre Cenker	Effects of soot volume fraction on bath-gas heating and particle sizing during LII
4	Joel Corbin	Laser-induced incandescence of aircraft engine black carbon: sensitivity to laser fluence
5	Gordon Humphries	Photoacoustic Measurement of Soot in a Flat Flame with a High Rep Rate Fibre Laser
6	Niklas Jüngst	Multi-diagnostic imaging of evaporating fuel wall-films in combustion as a source of PAH and soot
7	Fengshan Liu	The morphology of soot aggregates generated in ethylene and propane inverse diffusion flames at different oxygen indexes
8	Raphael Mansmann	LIIsim: A modular signal processing toolbox for laser-induced incandescence measurements
9	Stanislav Musikhin	Temporally- and spectrally-resolved LII measurements on a standard flame using a streak-camera and multichannel PMT setup
10	Manu Naduvil Mannazhi	Laser diagnostics for soot for high pressure CH ₄ -air diffusion flames
11	Mathieu Roussillo	LII measurements in a Confined Swirled Sooting Flame under Perfectly Premixed Rich Conditions
12	Robert Roy	Laser induced incandescence imaging in diffusion flames of liquid fuels relevant to biomass combustion
13	Timothy Sipkens	What is hiding in the intensity scaling factor and what can be gained from analyzing its temporal variation?
14	Sina Talebi Moghaddam	Neutral bremsstrahlung emission in laser-induced incandescence experiments on soot and silver nanoparticles
15	Shurik Yatom	Planar Laser-induced incandescence approach for detection of nanoparticle growth regions
16	Jérôme Yon	Impact of the OC/EC ratio of soot particles generated by miniCAST and coating of these soot particles by an organic material on LII measurements
17	Jinfeng Yuan	Comparison of continuous wave and pulsed LII measurements of black carbon mass at atmospherically-relevant concentration levels