CONFERENCE SCOPE AND TOPICS

Lasers and Optics
High-Power Lasers (from CW to Ultrafast)
Non-Linear Optics for Pulse Compression and Frequency Conversion
Machine Learning in Optics and Lasers
Diffractive Optics for Spatial, Spectral, and Temporal Beam Shaping
Novel Laser Concepts
Fibre-Optic Beam Delivery

Fundamentals of Laser Processing
Diagnostics of Laser Materials Processing
X-Ray Imaging of Laser Materials Processing
Spatial and Temporal Optimization of Processing with Ultrafast Lasers
High-Power Materials Processing (>20 kW CW, >1 kW Ultrafast)
Laser Materials Processing of Advanced Novel Materials
Laser Materials Processing of Semiconductors and Dielectrics

Lasers in Manufacturing
Machine Learning in Manufacturing
Process Monitoring and Control in Laser Materials Processing
Novel Laser Processes from Ultrafast to CW and Combinations thereof
Scaling the Productivity of Laser Materials Processing
Scaling of Additive Manufacturing (Resolution, Productivity)
Digital Methods in Laser-Based Manufacturing
New Machines, Strategies, and Methods

Special Topics
Laser Processing for Quantum Technologies
Versatile High-Power Lasers from CW to Ultrafast
Dynamic Laser Beam Shaping and its Application

Submission of a 1-page abstract until 15 December 2023
Notification of acceptance on 31 January 2024
Registration of presenting authors until 30 April 2024

Online Submission
www.conftool.org/slt2024
For more information please visit
www.slt.uni-stuttgart.de