# DaVis PIV Seminar

## 18. - 20.11.2024

# Program DaVis PIV seminar 18. - 20.11.2024

| | | |
|---|---|---|
| Monday, 18.11. | 9:00 – 9:30 | **Welcome** in the LaVision GmbH facilities, Göttingen, Anna-Vandenhoeck-Ring 19 |
| | 9:30 – 12:30 | **How PIV works**<br>▸ PIV vs. PTV<br>▸ Cross-Correlation<br><br>**Hardware**<br>▸ CMOS and sCMOS cameras<br>▸ CW-, pulsed Nd:YAG and pulsed Nd:YLF lasers<br>▸ Sheet optics |
| | | ***Break*** |
| | | **DaVis 11 basics**<br>▸ Project Browser<br>▸ Recording<br>▸ Calibration<br>▸ Processing |
| | 12:30 - 13:30 | ***Lunch break*** |
| | 13:30 - 17:30 | **Lab session 1** |
| | | ***Break*** |
| | | **Lab session 2** |

# Program DaVis PIV seminar 18. - 20.11.2024

| Tuesday, 19.11. | 9:00 – 12:30 | **Optimization of recording parameter**<br>▶ Particle imaging & seeding the flow<br>▶ Camera positioning<br>▶ Focus and contrast<br>▶ Pulse separation PivDt<br>▶ Seeding density |
|---|---|---|
| | | *Break* |
| | | **Vector calculation parameter**<br>▶ Evaluation of PIV recordings<br>▶ Uncertainty<br>▶ Sum of correlation<br>▶ PIV on GPU<br><br>**Vector postprocessing**<br>▶ Vector range<br>▶ Q-factor<br>▶ Median filter |
| | 12:30 - 13:15 | *Lunch break* |
| | 13:30 - 17:30 | **Lab session 3** |
| | | *Break* |
| | | **Lab session 4** |
| | 19.00 | **LaVision invites to a restaurant in downtown Göttingen** |

# Program DaVis PIV seminar 18. - 20.10.2024

| Wednesday, 20.11. | 9:00 – 12:30 | **Advanced setups**<br>▶ Stereo-PIV and SPIV self-calibration<br>▶ Micro-PIV<br>▶ Time-resolved PIV (Pyramid correlation)<br>▶ Side-by-side PIV<br>▶ Tomographic PIV/ STB (basics) |
|---|---|---|
| | | *Break* |
| | | **PIV tool dialogs**<br>▶ Image preprocessing<br>▶ Correlation map<br>▶ Probability Density Function (PDF)<br>▶ Perspective correction and distortion<br>▶ Wizards<br><br>**Related calculation techniques**<br>▶ Proper Orthogonal Decomposition (POD)<br>▶ Power spectrum<br>▶ Space-Time-Correlation<br>▶ Pressure-from-PIV |
| | 12:30 - 13:15 | *Lunch break* |
| | 13:15 – 17:30 | **Lab session 5** |
| | | *Break* |
| | | **Open questions & wrap up** |