

PDV Workshop 2023

Tuesday, February 7

8:00 - 8:30	Registration: Lumpkins Ballroom North
8:30 - 8:40	Welcome
8:40 - 9:40	Oliver T. Strand: Brief History and Summary of the PDV
9:40 - 10:00	Jacky Benier: Development on PDV at 830 nm
10:00 - 10:30	Coffee Break
10:30 - 10:50	Rory Bigger: Development and Testing of a New Commercially Produced Optical Receiver for PDV
10:50 - 11:10	Jeffrey Miller: Maximizing SNR using Fast Hardware Averaging
11:10 - 11:30	Jeffrey Miller: Real Time Digitizer Architectures
11:30 - 11:50	Ren Hong: An Open Platform and Modular Based Approach for Building Photon Doppler Velocimetry (PDV) Systems
11:50 - 1:20	Lunch (see attendee packet for suggested restaurants in the area)
1:20 - 1:40	Darryl Benally: PDV polarization control
1:40 - 2:00	Yohan Barbarin: Multi-wavelengths crosstalk-free PDV and uncertainties evaluation
2:00 - 2:20	Christopher R. Johnson: Using PDV to measure transverse and off-axis velocity
2:20 - 2:40	Daniel Champion: Exhaustively searching PDV waveforms using fast circular convolution/cross-correlation to perform improved extraction of dynamic surface velocity
2:40 - 3:10	Coffee Break
3:10 - 3:30	Jacob M. Diamond: ALPSS: A program for automated analysis of photonic Doppler velocimetry spall signals
3:30 - 3:50	Travis J. Voorhees: HiFiPDV: A High Fidelity Analysis Program for Processing Single Velocity PDV Signals
3:50 - 4:10	Dan H. Dolan: Thrifty PDV analysis
4:10 - 4:30	Jérôme A. Don Jayamanne: How to account for multiple scattering in Photon Doppler Velocimetry spectrograms?
4:30	Adjourn
5:00	Social Hour: La Terraza Banquet Room
6:00	Conference Dinner: La Terraza Banquet Room

Wednesday, February 8

- 8:30 - 8:40 **Registration: Lumpkins Ballroom North**
- 8:40 - 9:40 Ed Daykin: Predecessor Diagnostics
- 9:40 - 10:00 Patrick Younk: Outbrief on PDV Hands-On Session
- 10:00 - 10:30 **Coffee Break**
- 10:30 - 10:50 Robert Ichiyama: Various Field Experiments Leveraging Multichannel PDV
- 10:50 - 11:10 Daniel Champion: Extending the Asay window measurement model
- 11:10 - 11:30 Daniel Kalb: Modulation Based Ranging (MBR) Analysis of Multi-Surface Data
- 11:30 - 11:50 Jean-Marc Chevalier: Experimental evidence of shock wave measurements with low-velocity (<100 m/s) and fast dynamics (<10 ns) capabilities using an innovative coupled PDV and triature VISAR diagnostic.
- 11:50 - 1:20 **Lunch (see attendee packet for suggested restaurants in the area)**
- 1:20 - 1:40 Charles Payne: Determining time of arrival using windowed PDV and experimental verification
- 1:40 - 2:00 Brandon M. La Lone: Observing the shock to detonation transition in nitromethane with PDV
- 2:00 - 2:20 Mark Foster: Time-Lens Photon Doppler Velocimetry
- 2:20 - 2:40 Ed Price: Development and testing of a new multiplexed Heterodyne Velocimeter
- 2:40 - 3:10 **Coffee Break**
- 3:10 - 3:30 Joseph Olles: Growth of Richtmyer-Meshkov Instability of Water Tamped Copper
- 3:30 - 3:50 Daniel Portillo: Laser-Driven Plate Impact Technique with Application to Al6061-T6 HEL, Spall, and EOS
- 3:50 - 4:10 Keith Tukes: Effects of Surface Preparation in Consolidated Aluminum Particles and Copper Cylinder Expansion Tests
- 4:10 - 4:30 Discussion
- 4:30 **Discuss Future PDV Workshops**
- 4:45 **Adjourn**

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