

Futuroscope-Poitiers, France, November 29<sup>th</sup> – December 1<sup>st</sup>, 2011

<http://fvr2011.conference.univ-poitiers.fr>

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### Tuesday November 29<sup>th</sup>

10:00-14:00 – Registration

14:00 – Opening session

Keynote lecture - 14:15 to 15:00

GRANGEAT P. Image reconstruction by analytical methods

Session 1 - 15:00 to 16:20 - Volume reconstruction

GAC N. *et al.*. Multi-GPU parallelization of a 3D Bayesian CT algorithm and its application on real foam reconstruction with incomplete data set.

PETRA S. *et al.*. Reconstruction properties of sensing matrices in tomographic Particle Imaging Velocimetry.

BARBU I. *et al.* Sparse models and pursuit algorithms for PIV Tomography.

GESEMANN S. Sparse non-negative volume reconstruction using non-linear substitution and spectral projected gradient methods.

Session 2 - 16:50 to 18:30 - Volume reconstruction & Solid applications

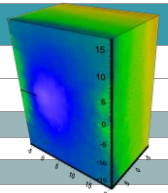
ROUX S., HILD F. Reconstruction of binary fields from very few projections.

DISCETTI S., ASTARITA T. Assessment of spatial filtering improved Tomo-PIV.

TRAN H. *et al.* Strain analysis of wood-based fibrous material in compression using X-Ray microtomography and digital volume correlation.

SCHANZ D. *et al.* Volume Reconstruction using spatial varying optical transfer function (OTF)

MACCHIARELLI R. *et al.* From outer to inner structural morphology. 3D imaging and quantitative characterization of fossil remains, with special reference to the 2.1 Ga macroorganisms of Gabon



### Wednesday November 30<sup>th</sup>

Keynote lecture - 9:00 to 9:45

SCARANO F. Recent development in time-resolved three dimensional velocity measurements in turbulent flows by high-speed tomographic image velocimetry

Session 3 - 9:45 to 10:45 - Volume measurement & Fluid applications

FUJISAWA N. *et al.* Simultaneous volume mapping of velocity and density fields in highly buoyant jet by time-resolved scanning stereo PIV and LIF

BERCHET A. Study of the entrainment in a jet in cross-flow with 3D coupled concentration/velocity measurements

LEMAY S. *et al.* Evaluation of the water-vapor interface of a cavitating part load vortex using PIV/LIF

Session 4 - 11:15 to 12:55 - Volume measurement & Fluid applications

COMBES B. *et al.* Free-surface flows from Kinect: Feasibility and limits

GOMIT G. *et al.* Calibration of camera model for free surface measurements

LECLAIRE B. *et al.* GPU-implemented, one-step Stereo PIV computation: performance assessment

KLINNER J., WILLERT C. Tomographic Spray Shadowgraphy - A Feasibility Study

LECORDIER B. Synthetic Image Generator for accuracy assessment of image processing technique applied to flow velocity measurement

Keynote lecture - 14:20 to 15:05

BERNARD D., N. COMBARE - Using 3D X-Ray tomography images to build pore network model for permeability prediction

Session 5 - 15:05 to 16:25 – Volume measurements

BRAULT R. *et al.* X-ray tomography and digital volume correlation for transverse shear analysis

DISCETTI S., ASTARITA T. Fast multi-resolution 3D PIV with direct correlations and sparse arrays

SCHRODER A. *et al.* Measurements of density fields in micro nozzle plumes in vacuum by using an enhanced tomographic Background Oriented Schlieren (BOS) technique

MAZURIER A. *et al.* Combining microtomographic and autoradiographic imaging techniques to reveal fluid pathways in natural and artificial materials : a development of the POSINAM Project

Session 6 - 16:55 to 18:15 - Holography

MALEK M. *et al.* Investigation of dynamic properties of linen fiber with digital holographic

SEIFI M. *et al.* 3D reconstruction of digital holograms of particles: fast detection using multi-resolution

SORIA J. *et al.* Tomographic digital holographic recording and reconstruction with applications to 3C-3D fluid flow measurements

KARRAY M. *et al.* 3D Mechanical sensing with digital color holography

### Thursday December 1<sup>st</sup>

Session 7 - 9:00 to 10:20 – Reconstruction & Volume measurement

ERRAPART A., ABEN H. Photoelastic tomography in the axisymmetric and non-axisymmetric case

BILSKY A.V. *et al.* Low computation cost reconstruction technique for Tomo-PIV

BRUNET F. *et al.* Monocular volumetric reconstruction of a fluid flow based on image registration and molecular tagging

BUCHMANN N. *et al.* 3C Volumetric high spatial resolution measurements of turbulent boundary layer flow using time-resolved SPIV

Exhibition - 10:20 to 10:50 - VSG

Session 8 - 10:50 to 12:30 - Volume reconstruction

JOSHI B. *et al.* Time-resolved volumetric Particle Tracking Velocimetry

KITZOFER J., BRUCKER C. 3D Reconstruction of coherent flow structures from volumetric PIV data fields

NOVARA M., SCARANO F. Motion tracking enhancement for tomographic PIV

PERONNET E. *et al.* X-Ray tomography for composite parts design

THOMAS L. *et al.* Comparison of Algebraic tomography PIV and scanning PIV for fluid flow

