# The 7th International Conference on Nanomaterials by Severe Plastic Deformation

2-7 July 2017 | University of Sydney Sydney | Australia www.nanoSPD7.com

## Invitation

The International NanoSPD Steering Committee and the Local Organising Committee invite you to attend the Seventh International Conference on Nanomaterials by Severe Plastic Deformation (NanoSPD7) to be held in Sydney, on 2–7 July 2017.

The NanoSPD conferences have been an important series of international events highlighting the potential of severe plastic deformation as a tool for producing bulk nanostructured and ultrafine grained materials. The conferences of this series take place every three years. The previous conferences held in Moscow (1999), Vienna (2002), Fukuoka (2005), Goslar (2008), Nanjing (2011), and Metz (2014) have been excellent forums for discussion of a wealth of challenging scientific problems associated with this field of research.

NanoSPD7 will provide a platform for the NanoSPD community to present new results and exchange research ideas. Your participation in NanoSPD7 and your scientific contributions are essential for its success.

We look forward to welcoming you to the beautiful city of Sydney that will be hosting NanoSPD7.

# **KEY DATES**

Call for Abstracts Opens **8 August 2016** Registration Opens **14 November 2016** Call for Abstracts Closes **13 January 2017** Notification of Acceptance **30 January 2017** Early-Bird Registration Closes **15 March 2017** Manuscripts Submission Close **15 March 2017** Pre-Conference **1 July 2017** NanoSPD7 Conference **2-7 July 2017** 



## **Local Organising Committee**

#### **Prof. Yuri Estrin - NanoSPD7 Honorary Chair** Department of Materials Science and Engineering

Monash University

#### Prof. Xiaozhou Liao - NanoSPD7 Chair

School of Aerospace, Mechanical and Mechatronic Engineering University of Sydney

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### Prof. Kenong Xia

Department of Mechanical Engineering The University of Melbourne

## **International Advisory Committee**

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**Prof. Michael Zehetbauer** University of Vienna, Austria

**Prof. Yuntian Zhu** North Carolina State University, USA

## **Conference Themes**

The themes of NanoSPD7 will include but not be limited to the following:

#### 1 Processing

- Processing techniques
- Surface nanostructuring and gradient structures
- Powder consolidation by SPD
- Emerging SPD techniques

#### 2 Microstructures and deformation mechanisms

- Microstructure and texture evolution
- Grain refinement and deformation mechanisms
- SPD-induced solute distribution
- Diffusion and grain boundary related phenomena
- Microstructural stability
- SPD-induced phase transformations
- Characterisation techniques for SPD-processed materials, including neutron and synchrotron characterisation

#### 3 Mechanical properties of SPD-processed materials

- Elastic and plastic deformation
- Superplasticity
- Effects of corrosion to mechanical properties

# 4 Biocompatibility and Biomedical applications of SPD processed materials

#### 5 Functional and multifunctional properties

#### 6 Modelling

- Modelling of SPD processes
- Modelling of microstructure evolution and phase transformations
- Modelling of mechanical properties

#### 7 Innovations in SPD processes

- Fabrication of hybrid materials by means of SPD
- Scaling of SPD processing
- Commercialisation of SPD-based technologies

# **Contact Us**

#### General Enquiries

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