

# Online Workshop

## “Fluctuation X-Ray Scattering”

**2-3 June 2021**  
**Venue: Online via Zoom**

14:30pm – 18:20pm CET (Hamburg, Germany)  
08:30am – 12:20pm EDT (New York, Ohio, USA)  
05:30am – 09:20am PDT (California, USA)  
21:30pm – 01:20am JST (Tokyo, Japan)  
22:30pm – 02:20am AEST (Melbourne, Australia)

The scope of the Workshop is to review recent theoretical and methodological advances in Fluctuation X-ray Scattering (FXS), as well as applications of the FXS approach for materials research at storage rings, Free-Electron Lasers (FELs), and other facilities.

**WEDNESDAY, 2 June 2021**  
**14:30pm - 18:20pm CET**

*Chair:* Adrian Mancuso (European XFEL)

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| 14:30 – 14:40 | <b>Serguei Molodtsov</b> (European XFEL, Germany)<br>Welcome  |
| 14:40 – 15:20 | <b>Ruslan Kurta</b> (European XFEL, Germany)<br>“Introduction”  |
| 15:20 – 16:00 | <b>Andrew Martin</b> (RMIT University, Australia)<br>“The pair-angle distribution function: a 3D real-space view of disordered nanostructure”       |
| 16:00 – 16:40 | <b>Ivan Vartanyants</b> (DESY, Germany)<br>“Correlation functions and fluctuation x-ray scattering and imaging”                                     |
| 16:40 – 17:00 | Break   |
| 17:00 – 17:40 | <b>Peter Zwart</b> (Berkeley Lab, USA)<br>“Perspectives on fluctuation scattering”  |
| 17:40 – 18:20 | <b>Sebastian Doniach</b> (Stanford University, USA)<br>“How to get time-resolution from frozen images: combining cryoEM with correlated scattering” |

**THURSDAY, 3 June 2021**  
**14:30pm - 18:20pm CET**

*Chair:* Anders Madsen (European XFEL)

- 14:30 – 15:10     **Amelia Liu** (Monash University, Australia)  
“Probing local order in colloidal glasses using scanning micro small angle x-ray scattering”
- 15:10 – 15:50     **Akinobu Niozu** (Hiroshima University, Japan)  
“Characterizing crystalline defects in nanoparticles from angular correlations of single-shot diffracted x-rays”
- 15:50 – 16:30     **Giulia Fulvia Mancini** (University of Pavia, Italy)  
“Light-activated response in colloidal dense systems with electrons and extreme ultraviolet scattering”
- 16:30 – 16:50     Break
- 16:50 – 17:30     **Felix Lehmkuhler** (DESY, Germany)  
“Application of XCCA for nanoparticle self-assembly and colloidal phase transitions”
- 17:30 – 18:10     **Jinwoo Hwang** (The Ohio State University, USA)  
“Fluctuation microscopy in scanning electron diffraction: new analysis of nanoscale ordering in disordered materials”
- 18:10 – 18:20     Concluding Remarks

**Program Committee:**

Richard Kirian (Arizona State University, USA)  
Ruslan Kurta (European XFEL, Germany)  
Andrew Martin (RMIT University, Australia)  
Yoshinori Nishino (RIES, Hokkaido University, Japan)

**Organizing Committee:**

Ruslan Kurta (Chair)  
Sandra Kniehl  
Serguei Molodtsov