



## ESRF Student Day - Monday, October 18, 2021

- 09:30 - 09:40 Welcome and Opening Remarks *Harald Reichert*
- 09:40 - 10:40 Oral Session** *chaired by Francesco Sette*  
ESRF Auditorium (limited capacity) and Online (zoom)  
<https://esrf.zoom.us/j/95300163791?pwd=eU1XcCtaNOZPRG9QbzV1Y0x1R2FFdz09>
- 09:40 - 10:00 Investigating the bassanite-gypsum transition combining diffraction tomography techniques  
**Michela La Bella**
- 10:00 - 10:20 Staggered undulator X-ray source for low emittance electron storage ring  
**Ilia Asparuhov**
- 10:20 - 10:40 Study of magnetically ordered rare-earth based MAX phases  
**Maxime Barbier**
- 10:40 - 11:00 Break**
- 11:00 - 12:00 Poster Clip Session** (2 minutes, 2 slides per poster) *chaired by Annalisa Pastore*  
Online (zoom)  
<https://esrf.zoom.us/j/95726126668?pwd=cGVqRW9vRFVuYXhjdVppUVlplll1dz09>
- Poster 1** - Understanding how green additives control crystallization at the nanoscale  
**Annet Baken**
- Poster 2** - Unveiling the properties of Warm Dense Matter for energy generation by fusion  
**Sofia Balugani**
- Poster 3** - Optimization of antimicrobial longevity in polymer-surfactant coatings  
**Egor Bersenev**
- Poster 4** - Studies of membrane proteins using pressurised noble gases  
**Sergei Bukhdruker**
- Poster 5** - Historical and industrial paints under synchrotron light  
**Ida Fazlic**
- Poster 6** - How high-speed synchrotron X-ray imaging can help us better understand Li-ion battery degradation and failure  
**Matilda Fransson**

**Poster 7** - Damage evolution during thermo-mechanical processing of thick aerospace aluminium plates

**Anthony Harrup**

**Poster 8** - From operando X-ray imaging of lubricant/steel boundary layers to the reduction of CO<sub>2</sub> emission

**Inga Kicior**

**Poster 9** - Characterization of plastic strain localization in polycrystalline Ni by means of 3D X-ray diffraction imaging techniques

**Zheheng Liu**

**Poster 10** - X-ray ghost imaging

**Mathieu Manni**

**Poster 11** - Monitoring sulphur poisoning of Cu-CHA deNO<sub>x</sub> catalysts by X-ray absorption spectroscopy

**Anastasia Molokova**

**Poster 12** - Advanced diffraction method for characterization of Li-ion battery materials

**Isabella Mombrini**

**Poster 13** - Structural basis of melanogenesis enzymes

**Yi Min Ng**

**Poster 14** - Emergence of Kondo physics in the surface region of CeCo<sub>2</sub>P<sub>2</sub>

**Georg Poelchen**

**Poster 15** - Optimized heat transfer for X-ray optical components designed for high vibration stability

**Alicia Potgieter**

**Poster 16** - Exploiting Serial crystallography in structure-based drug design

**Mahmoud Rizk**

**Poster 17** - Operando stability investigation of ORR electrocatalysts

**Michal Ronovsky**

**Poster 18** - Performing Energy Dispersive Laue Diffraction (EDLD) by means of X-rays Color Camera Microscope (XCCM)

**Charbel Sakr**

**Poster 19** - Uncovering novel drug targets of polyprotein precursors of SARS-CoV2

**Gian Luca von Scholley**

**Poster 20** - In situ spectroscopy of emission control catalysts with tender X rays

**Alexander Suarez**

**Poster 21** - Nanoimaging of solid solution domains during phase transitions inside LiMn<sub>1.5</sub>Ni<sub>0.5</sub>O<sub>4</sub> cathode material

**Nikita Vostrov**

**Poster 22** - Developing scintillators with high stopping power for X-ray imaging applications at synchrotrons

**Laura Wollesen**

**Poster 23** - Anisotropic effects in stress-deformed rubbers observed by Small-Angle X-Ray Scattering

**Ilya Yakovlev**

**Poster 24** - XRD and XAS investigation of cobalt-based Fischer-Tropsch synthesis catalysts

**Lipeng Yao**

**Poster 25** - Catalytic dehydrogenation in LOHC technology

**Olvido Irrazabal Moreda**

**Poster 26** - Towards a better understanding of Ni superalloy failure: an *in-situ* observation

**Pedro Damas Resende**

**12:00 - 14:00** *Lunch Break*

**14:00 - 14:45** **Poster Session 1**

*chaired by Montserrat Soler-Lopez*

Online (zoom breakout rooms)

<https://esrf.zoom.us/j/93180177608?pwd=aDFCMTRZUEcwUDJPY1ZxMFVrUGpKQT09>

Posters 1 to 13

**14:45 - 15:00** *Break*

**15:00 - 15:45** **Poster Session 2**

*chaired by Patrick Bruno*

Online (zoom breakout rooms)

<https://esrf.zoom.us/j/94704784388?pwd=WHdHekNhZDJlQWxmVG1MTTg0YVJ5QT09>

Posters 14 to 26

**15:45 - 16:00** **Closing Remarks**

**Gordon Leonard**

Online (zoom) same link as Poster Session 2

<https://esrf.zoom.us/j/94704784388?pwd=WHdHekNhZDJlQWxmVG1MTTg0YVJ5QT09>

**Organizing Committee:** Patrick Bruno, Montserrat Soler-Lopez, Laura Wollesen, Michela La Bella, Michal Ronovsky, Mattia Colalongo, Eva Jahn, Claudine Roméro, Eleanor Ryan