# ORNL/Virginia Tech/University of Virginia Joint Workshop on Neutron Scattering for Science and Engineering

## Wednesday, September 27, 2017

## The Inn at Virginia Tech and Skelton Conference Center

***Objective:*** *Establish stronger links between ORNL Neutron Sciences Directorate and Science and Engineering Researchers at Virginia Tech and the University of Virginia.*

| Time | Event |
|---|---|
| **8:00–8:30 a.m.** | **Continental Breakfast, Registration** |
| 8:30–8:40 a.m. | **Welcome by Theresa Mayer**<br>Vice President for Research and Innovation<br>Virginia Tech<br>**-- OR --**<br>**Terry Herdman**<br>Virginia Tech Liaison to ORNL<br>Virginia Tech |
| 8:40–9:00 a.m. | **Welcome by Andrew Payzant**<br>Neutron Sciences<br>Oak Ridge National Laboratory |
| 9:00–9:25 a.m. | *Understanding Mechanical Behaviors of Materials by Neutron Scattering*<br>**Ke An**, Neutron Sciences, ORNL |
| 9:25–9:50 a.m. | *Neutron Imaging and Tomography*<br>**Lou Santodonato**, Neutron Sciences, ORNL |
| 9:50–10:15a.m. | *Powder and Single Crystal Diffraction*<br>**Bryan Chakoumakos**, Neutron Sciences, ORNL |
| **10:15–10:45 a.m.** | **Coffee Break** |
| 10:45–11:10 a.m. | *Applications of Neutron Scattering in Geosciences*<br>**Nancy Ross**, Geosciences, VT |
| 11:10–11:35 a.m. | *Neutron Scattering as a Probe for Emergent Phenomena in Novel Materials*<br>**Chunruo Duon**, Physics, UVA |
| 11:35 a.m.–12:00 p.m. | *In-situ Neutron Diffraction during Deformation, Phase Transformation, and Crystallographic Texture Evolution*<br>**Sean Agnew**, Materials Science and Engineering, UVA |

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|---|---|
| 12:00–12:15 p.m. | Discussion of Future Opportunities for Collaborative Research |
| **12:15–1:45 p.m.** | **Lunch and Poster Session** |
| 1:45–2:10 p.m. | *SANS and Reflectometry*<br>**Volker Urban**, Neutron Sciences, ORNL |
| 2:10–2:35 p.m. | *Condensed Matter Physics with Neutrons*<br>**Matt Stone**, Neutron Sciences, ORNL |
| 2:35–3:00 p.m. | *How to Access Neutron Scattering Facilities*<br>**Andrew Payzant**, Neutron Sciences, ORNL |
| 3:00–3:30 p.m. | **Coffee Break** |
| 3:30–3:55 p.m. | *Elevated Temperature Residual Stress Relaxation*<br>**Scott Case**, Engineering Science and Mechanics, VT |
| 3:55–4:20 p.m. | *Understanding Structure Property Relationships in Lead-Free Piezoelectric Materials Using Neutrons*<br>**Deepam Maurya**, Institute for Critical Technology and Applied Science, VT |
| 4:20–4:45 p.m. | *Martensitic Transformation in Granular Superelastic Ceramics*<br>**Hang Yu**, Materials Science and Engineering, VT |
| 4:45–5:00 p.m. | **Discussion of Future Opportunities for Collaborative Research**<br>All participants |