

**Workshop on Perspectives and Applications of Deep Learning for Accelerated Scientific Discovery at next generation X-ray and Neutron Sources**  
**September 26-27, 2019**

- (1) *All participants can take part on the keynote lectures Thursday morning and presentation of the group discussion on Friday starting with coffee at 10:00.*  
 (2) *Lunch and coffee breaks are free to all participants.*

*Thursday, September 26*

9:00 – 9:30	Registration	
9:30 – 9:45	Heloisa N. Bordallo	Designing a road map: What is needed?
9:45 - 10:35	Christian Igel University of Copenhagen, DK	Deep Learning: The Power of the U
10:35 - 11:05	Coffee break	
11:05 - 11:55	Toby Perring ISIS Facility, UK	The complexity of neutron TOF data and how we can get a better understanding of scientific processes using neutron spectroscopy
11:55-12:50	Abbas Ourmazd University of Wisconsin-Milwaukee, USA	Machine Learning routes to structure and dynamics
12:50 - 14:00	Lunch	
14:00 - 18:00 <i>(closed section: invitation only)</i>	Parallel panel discussions on: <ul style="list-style-type: none"> <li>• The use of DL architectures for <b>modeling</b>: unbiased and objective analysis of scattering data</li> <li>• The use of DL methods for <b>controlling data collection</b>: finding anomalies in the experimental data in real time</li> <li>• The use of DL methods for <b>data reduction</b>: enhancing the efficiency of the scientific workflow.</li> </ul>	
19:30 -	Dinner for keynote speakers, conveners and panel members	

*Friday, September 27*

9:00 – 10:30 <i>(closed section: invitation only)</i>	Conveners and panel members discussion wrap-up
--	--

10:30 – 11:00	Coffee break	
11:00 -11:30	Troels Petersen University of Copenhagen, DK	Panel discussion 1: <b>DL &amp; data collection</b>
11:30 -12:00	Harald Reichert ESRF, France	Panel discussion 2: <b>DL &amp; data reduction</b>
12:00 -12:30	Toby Perring ISIS Facility, UK	Panel discussion 3: <b>DL &amp; data analysis</b>
12:30-13:00	Jon Taylor DMSC, ESS	Designing a road map: Conclusion
13:00	Lunch and Good bye	