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# Workshop on Science of Data Science | (smr 3283)

## Monday 30 September 2019

### Monday, 30 September - Budinich Lecture Hall (LB) (08:00-20:00)

time	title	presenter
08:00	Registration and administrative formalities	
08:45	Welcome address by the Organisers and ICTP Director	
09:00	Machine learning with neural networks: the importance of data structure	MARC MEZARD
09:45	Statistical-to-computational gaps in high dimensional hypothesis testing and other problems	AFONSO S. BANDEIRA
10:30	Coffee break	
11:00	Recent advances in the information theory of deep neural networks and the computational benefits of the hidden layers	NAFTALI TISHBY
11:45	TBA	RICCARDO ZECCHINA
12:30	Lunch break	
15:30	Analysing the dynamics of message passing algorithms for inference using statistical mechanics and random matrix theory	MANFRED OPPER
16:15	From sequence data to protein design with Boltzmann machines	SIMONA COCCO
19:00	Welcome get-together	