

MPHIL IN MACHINE LEARNING & MACHINE INTELLIGENCE RESEARCH REVIEW PROGRAMME

10.00, Tuesday 21st June 2022, Lecture Room 4, Baker Building,
Department of Engineering, Trumpington Street, Cambridge

10.00 Welcome and introduction from Professor Richard Turner, Course Director

10.05 Two minute presentations by students in Group A

<i>Project Title</i>	<i>Student</i>	<i>Supervisors</i>
Global Inducing Point Variational Approximations for Federated BNNs Using PVI	Maximiliaan Bronckers	Prof R. Turner
Autoregressive Conditional Neural Processes	Anthony Buonomo	Prof R. Turner
Better Encoders for Neural Process Family Models	Benedict King	Prof R. Turner
Adversarial Attack Robust NLP	Yufan Wang	Prof M. Gales
Deep Reinforcement Learning for 3D Molecular Design	Adrian Black	Dr J M H Hernández-Lobato
Outlier Identification and Explanation with Hierarchical VAEs and Hamiltonian Monte Carlo	Haoran Peng	Dr J M H Hernández-Lobato
Efficient Reinforcement Learning through Value Uncertainty Learning	Patrik Gergely	Prof Carl Rasmussen
Domain Generalization for Robust Model-based Offline Reinforcement Learning	Alan Clark	Dr David Krueger
Improving Machine Learning Systems by Eliciting and Incorporating Additional Human Input	Katherine Collins	Dr Adrian Weller
Vision Encoders in Visual Question Answering	Ryan Anderson	Prof W J Byrne
Joint Learning of Practical Dialogue Systems and User Simulators	Alistair McLeay	Prof W J Byrne

10.30 Group A Poster Session

Tea and coffee served during session

11.00 Two-minute presentations by students in Group B

<i>Project Title</i>	<i>Student</i>	<i>Supervisors</i>
Causal Self-Supervised Learning for Tabular Data	Stuart Burrell	Prof. Mihaela van der Schaar
Attention-Based Sheaf Neural Networks	Federico Barbero	Prof Pietro Liò
Graph Representation Learning for Child Mental Health Prediction	Ryan Crowley	Prof Pietro Liò
Knowledge Graph and Memory Generation from Text	Haitz Sáez De Ocáriz Borde	Prof Pietro Liò
Scalable Bayesian Inference for Probabilistic Spectrotemporal Models of Type Ia Supernovae	Ana Sofia Uzsoy	Dr Kaisey Mandel
Automating Counterspeech in Dialogue Systems	Shane Weisz	Dr Marcus Tomalin
Stochastic Memory for Sequence Modelling	David Goldfarb	Dr Christian Steinruecken
Non-Gaussian Lévy Processes in ML	Trevor Clark	Prof Simon Godsill
Multimodal Reference Resolution	Alejandro Santorum Varela	Dr Svetlana Stoyanchev
Building a Conversational User Simulator using GANs	Lucia Lopez Rivilla	Dr Simon Keizer
Few-Shot Learning with Multimodal Foundation Models	Vishal Udandara	Dr S Albanie
Interactive Video Retrieval with Natural Language Queries	Kaiqu Liang	Dr S Albanie
Effectiveness of SSL Representations for Source Separation	Yuang Li	Prof P. Woodland

11.30 Group B Poster Sessions

12.00 Alumni Talks

Max-Olivier van Bastelaer (2020-2021), Apple

Jordan Burgess (2015-2016), Humanloop.com

12.30 Lunch

