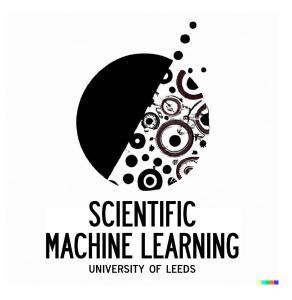
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Hi <<Don't put your details here!>>,

On Friday Dr Mariana Clare from ECMWF will be joining us virtually to talk about deep learning methods being used to produce highly accurate weather predictions, and whether these methods are more accurate than the existing state-of-the-art numerical weather models.

Come along in person to to our room in LIDA, Worsley Building Room 11.87 for hot drinks, cake, and croissants!

Please see below for the full details and hope to see you there. <u>Teams link if joining remotely.</u>

Any questions, please feel free to reply to this email.

We look forward to seeing you on Friday!

Could deep learning methods replace numerical weather models?

Dr Mariana Clare, ECMWF

Friday 20th October - 3-4pm (Worsley Room 11.87 / hybrid)

1 of 3 13/03/2025, 14:47

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Abstract:

Over the last year, there has been a rise in deep learning methods being used to produce highly accurate weather predictions. These methods include deep learning techniques such as Transformers and Graph Neural Networks amongst others, and have been applied by some of the world's leading tech companies. Some works have made claims that these deep learning methods are more accurate than the existing state-of-the-art numerical weather models. But is this claim justified? And if it's not, will there be deep learning methods in the future that can provide a better forecast than numerical models? In this talk, I will discuss the methods used and their advantage and limitations over existing numerical weather models.

Bio:

Mariana Clare is a researcher at the European Centre for Medium Range Weather Forecasts (ECMWF), where she works on building a machine learning model for weather forecasting. She is particularly interested on how to capture the model uncertainty in these data-driven approaches. She recently received a PhD from Imperial College London, focussing on developing advanced numerical and statistical techniques to quantify uncertainty in coastal ocean models. By training she is a mathematician, having done her undergraduate degree in Mathematics at the University of Oxford.

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3 of 3 13/03/2025, 14:47