

Srdečně zveme na přednášku v rámci seminárního cyklu Dynamická planeta Země, pořádaný ve spolupráci geovědních ústavů AVČR a Přírodovědecké fakulty UK

Dynamická planeta Země

STRATEGIE **AV21**

Špičkový výzkum ve veřejném zájmu



23.4. 14:50

Posluchárna Věž, Albertov 6

Stefano Federico

*(Istituto di Scienze dell'Atmosfera e del Clima; host
Ústavu fyziky atmosféry AVČR)*

Numerical weather prediction and data assimilation

Weather forecasts today aren't just guesswork – they're based on complex mathematical models and huge amounts of data from all over the world. But to make accurate forecasts, these models need to start with a clear picture of what the atmosphere looks like right now. That's where data assimilation comes in.

In this talk, you'll learn:

- what data assimilation is and why it's so important for weather forecasting,
- how observations from weather balloons, radars, lightning sensors, and navigation satellites (GNSS) are used to improve forecasts,
- why lightning data is especially helpful for predicting severe storms – and how it works in practice,
- how these methods are used around the world, including real-life applications over Italy.

This lecture is designed for a general audience – no technical background needed. Whether you're curious about the science behind your weather app or just love learning how things work, come and discover what goes on behind the scenes of your daily forecast.

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