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# 6th Summer School on Theory, Mechanisms and Hierarchical Modelling of Climate Dynamics: Artificial Intelligence and Climate Modelling | (smr 4067)

## Thursday 15 May 2025

**notitle - Kastler Lecture Hall (AGH) (09:00-17:00)**

time	title	presenter
09:15	From observations to realistic simulations, the mechanisms that develop and prevent convective organization	ALEJANDRO CASALLAS GARCIA
09:30	Investigating deep convective systems with Machine Learning and causal inference across a hierarchy of datasets	ANDREA POLESELLO
09:45	Improving Global Wildfire Simulations Using Machine Learning	FLORENCE ABIODUN KAYODE
10:00	Coffee Break	
10:30	Data-Driven Equation Discovery of In-Cloud Vertical Velocity	ALZBETA PECHACOVA
10:45	Exploring windows of opportunity at sub-seasonal time scales for extreme precipitation events: the Valencia DANA case study	NURIA PEREZ ZANON
11:00	Circulation Regimes and The Signal-to-Noise Paradox in AI Prediction Models	TIM PALMER
11:30	Round Table Discussion: Can AI Models Fully Replace Physical Models for Long-Range Forecasting and Climate Simulations	TIM PALMER (UNIVERSITY OF OXFORD, UK), JAKOB SCHLOER (ECMWF, UK), FRANCO MOLTENI (AGENZIA ITALIANA METEO, ITALY), ERIKA COPPOLA (ICTP, ITALY)
12:30	Lunch	
14:00	Hackathon	
15:00	Coffee Break	
15:30	Hackathon	