**Green computing for climate science**

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**Abstract:**

Climate modelling is essential for understanding the Earth system and how human actions will continue to affect it over the coming years and decades. At heart, a climate model is a large piece of software that requires running on a high-performance computer for enough time to simulate decades or centuries of the Earth system. As such, climate models require large amounts of energy to run and therefore can have a significant carbon footprint. This talk will introduce green computing concepts and provide several strategies for reducing the carbon footprint of climate models and thereby reducing their contribution towards climate change.