



The Role of Models in Geoscience

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What is a model, anyway? Different geoscientists will give different answers. There are conceptual models, numerical models, statistical models, forward models and inverse models; there are even different models of the scientific method. As a founding and now chief exec editor of the journal *Geoscientific Model Development*, I have contemplated the different approaches to computational modelling presently being implemented across the different areas of Geoscience. Meanwhile, in my own work, I have primarily focused on confronting model output with observations. It is from these perspectives that I will discuss the variety of roles and usages of modelling in modern geoscience.