

Exploration of Uncertainty in Glacier Modelling

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BiblioGov. Paperback. Book Condition: New. This item is printed on demand. Paperback. 40 pages. Dimensions: 9.7in. x 7.4in. x 0.1in. There are procedures and methods for verification of coding algebra and for validations of models and calculations that are in use in the aerospace computational fluid dynamics (CFD) community. These methods would be efficacious if used by the glacier dynamics modelling community. This paper is a presentation of some of those methods, and how they might be applied to uncertainty management supporting code verification and model validation for glacier dynamics. The similarities and differences between their use in CFD analysis and the proposed application of these methods to glacier modelling are discussed. After establishing sources of uncertainty and methods for code verification, the paper looks at a representative sampling of verification and validation efforts that are underway in the glacier modelling community, and establishes a context for these within overall solution quality assessment. Finally, an information architecture and interactive interface is introduced and advocated. This Integrated Cryospheric Exploration (ICE) Environment is proposed for exploring and managing sources of uncertainty in glacier modelling codes and methods, and for supporting scientific numerical exploration and verification. The details and functionality of this Environment are...



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