

报告题目: On the Dynamics of Grounded Shallow Ice Sheets: Modelling and Analysis

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报告摘要: In this talk, which is based on joint work with Roger Temam (Indiana University), we will study a model describing the evolution of the thickness of a grounded shallow ice sheet. Since the thickness is constrained to be nonnegative, the problem at hand is an obstacle problem. Our rigorous modeling shows that this time-dependent model is governed by a set of variational inequalities that involve nonlinearities in both the time derivative and the elliptic term. To establish the existence of solutions, we begin with a penalized relaxation of the model and demonstrate, through time discretization, that the corresponding relaxed problem admits at least one solution.

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