



On the stability of hanging glaciers

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The stability of hanging glaciers is discussed on the basis of observations performed on several glaciers located in the Alps. A classification of the hanging glaciers is proposed, which allows a primary appreciation of the danger inherent to these glaciers. On the basis of field observations and results of numerical simulations of crevassing, the fracture processes, which lead to major icefalls, and the occurrence of these icefalls are analyzed.

A method for the prediction of the time of failure is discussed. The disaggregation of the unstable ice masses usually observed prior to large ice falls is investigated and its implication for the forecasting of icefalls analyzed.