

PREFACE

The International Symposium on Snow, Avalanches and Impact of the Forest Cover, organized by the International Glaciological Society, was held in Bozen Hall of Congress Innsbruck, Innsbruck, Austria, from Sunday 21 May to Friday 26 May 2000. It was co-sponsored by the:

Federal Ministry of Agriculture and Forest, Austria;
Institute of Avalanche and Torrent Research (FBVA);
Governor and Province of Tyrol;
Mayor and City of Innsbruck;
Congress Innsbruck GmbH;
Austrian Cableway Association.

Sixty-three oral presentations were given in fifteen sessions and forty-two posters were presented. The following topics were covered: snow cover and its modelling; avalanche dynamics and control; hazard mapping; snow drifting and snowpack behaviour; snow properties; slush-flows; and effects of the forest on the snow cover. The symposium sessions were generally structured according to these subjects, but not all were represented with the same or similar emphasis.

The intention of the symposium, clearly expressed in its title, was to attract snow and avalanche researchers, as well as specialists in forestry, to encourage a dialogue that would further the science. However, there were many presentations on snow and avalanches which had no connection with the forest cover, but only a few, far less than half, dealing with the influence of vegetation within the snow cover, or the forest, on the dynamics of avalanches. Both groups appeared to have some difficulty appreciating the topics or quality of topics of one group in the presentations of the other. This reflects the different approaches of the disciplines — here engineering and physics, there forestry and botany — and was also mirrored in how papers were judged by the referees. In a few cases decisions had to be reviewed to ensure an appropriate balance was maintained.

From an engineer's or physicist's viewpoint, topics could be divided into those treating snow in motion and snow at rest. As for the former, it was a surprise that all presentations on the dynamics of avalanches dealt with flow avalanches and none with powder-snow avalanches. This was despite ongoing work on powder-snow avalanches, or mixed forms consisting of flow and powder-snow components, in both Austria and Switzerland. It is hoped that this imbalance will be corrected by the time of the next symposium. Presentations on mechanical properties of creeping snow concentrated on the identification of phenomenological parameters of very simple linear rheological models, through laboratory experiment and field observation, partly with modest attempts at homogenization procedures to infer macroscopic from microscopic properties. Attempts to relate snow texture to its mechanical and thermal behaviour at large hold much promise for the coming years.

That the thermomechanical response of the snow cover to atmospheric conditions is largely affected by the structure of the overgrown canopy clearly shows that the interaction of snow and vegetation ought to be a topic of future snow research. However, the interdisciplinarity of the topic requires flexibility and openness by all scientists to the questions and working methods of their companion sciences; without this, positive results are much less likely to be achieved.

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