



New Energy-efficient Snow production

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Artificial snow making is widely used in the Alps, mainly to compensate for missing snow cover. Since snow production requires both water and energy, it is necessary to develop new technologies in this field that optimise the production process. In particular in terms of energy consumption, new technologies are developed to minimize the use of energy and costs. The aims of this paper are to model the process of artificial snow making in the Swiss Alps. Several field and laboratory campaigns will be presented. The actual process of snow production, as it exits the snow canons and snow hoses and accumulates on the ground is modelled and validated with field and laboratory experiments. Amongst other techniques, infra-red measurements show detailed temperature distributions. Techniques are demonstrated on how snow-making can be optimised.