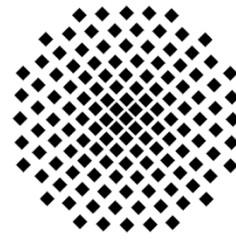


# Stuttgarter Physikalisches Kolloquium

Fachbereich Physik, Universität Stuttgart  
Max-Planck-Institut für Festkörperforschung  
Max-Planck-Institut für Intelligente Systeme

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Universität Stuttgart, Pfaffenwaldring 57, 70569 Stuttgart-Vaihingen

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## Snow avalanches, avalanche release, and human factors

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### Abstract

What are snow avalanches and how and why do they release? From a dry engineering point of view snow avalanches are defined as a fast mass-movement of snow with a volume of more than 100 m<sup>3</sup> and a length of more than 50 m. In the media as well as in movies, on the other hand, snow avalanches are usually described with more emotion and are often referred to as “the white death”, as a treacherous and unpredictable threat lurking in the beautiful, snow-covered mountains. This talk will briefly cover a number of processes which lead to “the white death”. We will start with snow formation in the atmosphere, which subsequently leads to a layered snowpack on the ground. From snow layers we will continue to snow avalanches, from the pure mechanics to accidents involving humans and human decision making. In the end you will hopefully have an overview of both the mechanics as well as the human factors involved in avalanche release.