

Building a better model of snow | Mathematics

As snow flurries mark the beginning of winter, a team of University of Waterloo researchers have digitized the white stuff into a new model that can be applied to better understand the impact of climate change.

SPLITSnow is a "light transport" model and is part of a larger body of research that simulates how light interacts with complex materials. While previous models exist, SPLITSnow is one of the most comprehensive models to date, which accounts for a variety of snowpack properties, such as density and water content, as well as the size and shape distributions of the individual grains. In addition, SPLITSnow attempts to account for the grains' crystalline makeup.

The new model will also allow the team to generate important data for climate scientists around the world. Their major goal is to simulate this essential part of the ecosystem to gain more insight into fundamental environmental processes as part of the university's overall objective of being a global leader in sustainability research, education and innovation to benefit the environment, economy and society.

Read the [full story](#) from Waterloo News to learn more.