



Hysteresis in snow metamorphism

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Recrystallization in snow is usually not considered as a hysteretic process. The structural changes observed should not depend on the history. Qualitative differences between field observation and laboratory experiments seem to suggest that this is not the case. Our observations, also preliminary, show that the rate of compaction and the shape of the crystals are intricately linked. A reason for this observation could be the combined action on the vapor diffusion field. Modeling the snowpack would then require to consider the combined strain and temperature history together, which is not the case in current models.