

An overview of current understanding of snow albedo feedback

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In this talk, I will review current understanding of snow albedo feedback. To assess the feedback's significance, I will examine its role in simulated climate change in the northern hemisphere extratropics, particularly its impact on warming, circulation, and hydrology. I will then discuss the status of the scientific community's ability to constrain the feedback. This involves three steps: (1) Identification of the feedback's signatures in the current climate, (2) Development of the means to measure such features observationally and comparison of the measurements to climate models, and (3) Further assessment of the feedback's credibility in successful models. Though significant progress has been made over the past five years in all these areas, much remains to be done.