Recrystallization of ice enhances the creep and vulnerability to fracture of ice shelves

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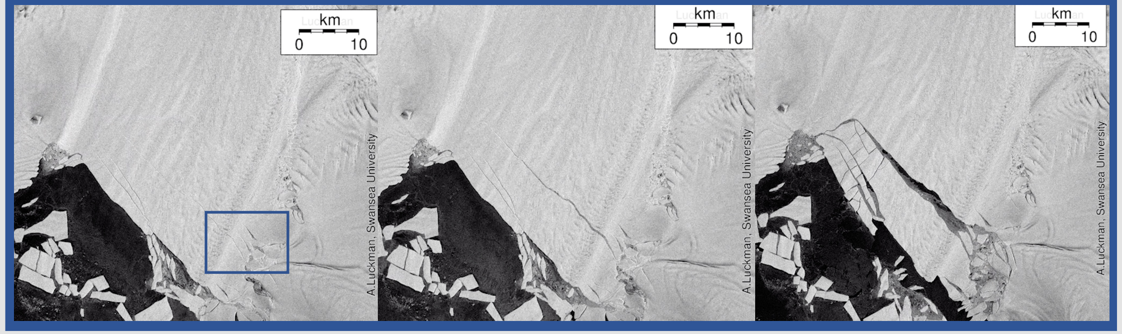
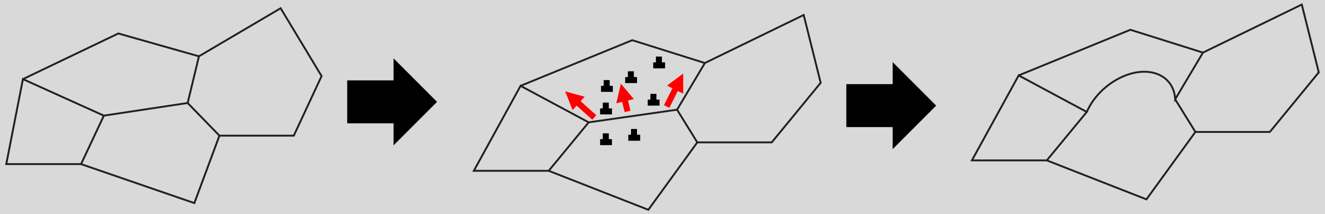
Ranganathan and others, *submitted* (doi: 10.31223/X5W31W)

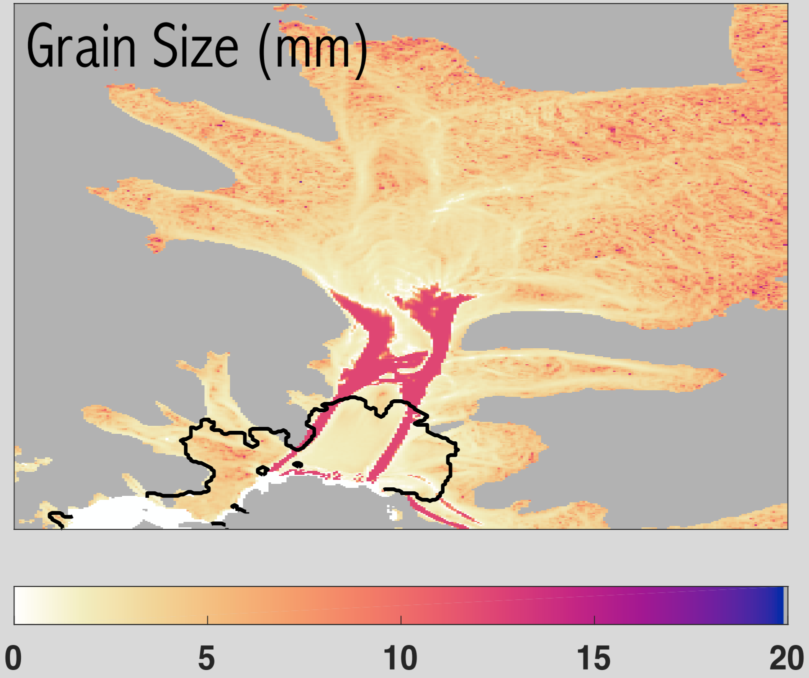
How does deformation affect the stability of glaciers?

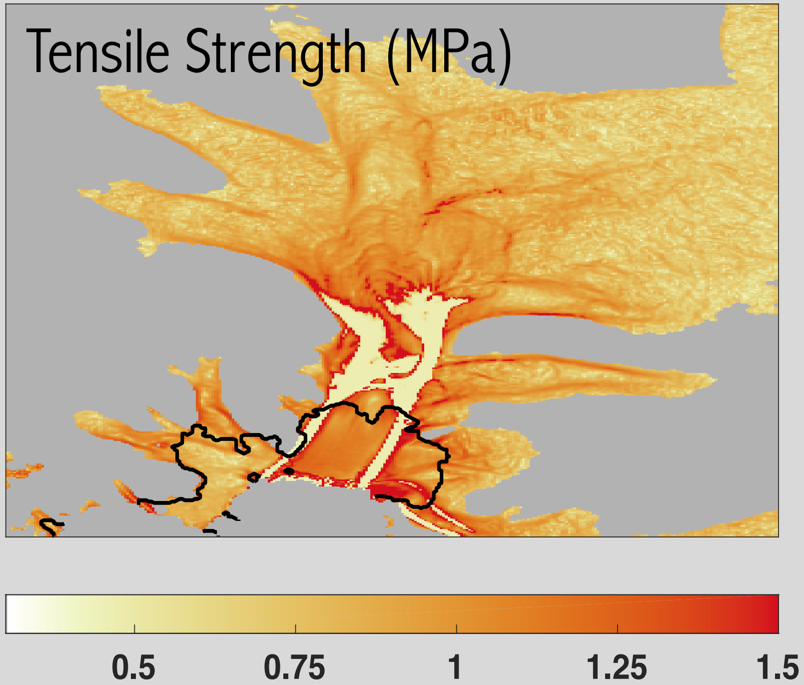


In zones of rapid deformation, migration recrystallization results in large grain sizes



Large grain sizes reduce the tensile strength of ice in key regions (margins) of ice shelves by ~75%, creating conditions for fracture and calving





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