Abstract Submitted
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From Glaciers to Icebergs WENDY ZHANG[1], University of Chicago — I will describe works from a collaboration between physics and glaciology that grew out of interactions at the *Computations in Science* seminar Leo Kadanoff organized at the University of Chicago. The first project considers the interaction between ocean waves and Antarctic ice shelves, large floating portions of ice formed by glacial outflows. Back-of-envelop calculation and seismic sensor data suggest that crevasses may be distributed within an ice shelf to shield it from wave energy. We also examine numerical scenarios in which changes in environmental forcing causes the ice shelf to fail catastrophically. The second project investigates the aftermath of iceberg calving off glacier terminus in Greenland using data recorded via time-lapse camera and terrestrial radar. Our observations indicate that the mlange of icebergs within the fjord experiences widespread jamming during a calving event and therefore is always close to being in a jammed state during periods of terminus quiescence. Joint work with Jason Amundson, Ivo R. Peters, Julian Freed Brown, Nicholas Guttenberg, Justin C Burton, L. Mac Cathles, Ryan Cassotto, Mark Fahnestock, Kristopher Darnell, Martin Truffer, Dorian S. Abbot and Douglas MacAyeal.

[1]Kadanoff Session DCMP

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