



The big melt: Is the loss of Arctic sea ice unstoppable?

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We discuss the recent evolution of Arctic sea-ice extent and give some overview of its possible future development. First, we analyse possible causes of the recent retreat, showing that the available data of sea-ice extent is sufficient to virtually rule out the possibility that natural variability was responsible for the sea-ice minimum in 2007. Focussing on the partial recovery of sea ice in summer 2008 and 2009, we show that despite the ice-albedo feedback, such partial recovery is likely to occur after an extreme minimum of sea-ice extent. In particular, we discuss some negative feedbacks that stabilize the ice cover. Finally, we briefly discuss what these findings mean for the predictability of the future sea-ice evolution.