Interactive comment on “Rapid decline of Arctic sea ice volume: Causes and consequences” by Jean-Claude Gascard et al.

Zehetbauer

thomasz@hostmaster.org

Received and published: 16 January 2019

At an average loss of 300km$^3$/year the arctic is removing 1e20 joules of heat energy from the northern hemisphere. This is equivalent to about 100ppm of the total energy received by the northern hemisphere or 1587000 times the energy of the Hiroshima bomb.

This is a just a first estimate ignoring further heat absorbed by the molten water and the increased absorption of solar energy by ocean surface compared to ice and snow.