

Interactive comment on “Variability of scaling time series in the sea ice drift dynamics in the Arctic Ocean” by A. Chmel et al.

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Dear Referee,

Please accept my sincere appreciation for improving my English.

At this stage of data collection/processing we cannot answer the question of the possibility of the automated detection. A preliminary work must be accomplished to increase the accuracy of the drift speed measurements in order to establish a closer interconnection/correlation between the type of sea ice motion (in the sense of its both fractal and mechanical characteristics) and the atmosphere/ocean forcing. For example, an interesting scenario was proposed by Referee #2: the dependence of fractal characteristics on the ice fracturing anisotropy. We believe that this and some other problems

could be resolved using three GPS receivers of the third generation which were established at the NP 37 camp in August 2009. At the same time, the IABP was successfully used to study large-scale fractal deformations in the ASIC by Rampal et al. (J. Geophys. Res., 113, C03002 (1-12), 2008).

I do not agree that our MS is “entirely focuses on sea ice”. We studied the response of the sea ice on various kinds of its interaction with the environment including wind, tidal and/or Coriolis forcing. In addition, every paper is addressed to a particular “readership”. It seems, the questions put by Referee #2 and Referee #4 reflect adequately the perception of this material by the ocean science community. I guess, specialists in the field of cryosphere would put quite different questions, and the discussion would risk becoming infinite.

All other remarks will be taken into account.

Interactive comment on Ocean Sci. Discuss., 6, 1595, 2009.

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Interactive Discussion

Discussion Paper