

Interactive comment on “Turbulent mixing and heat fluxes under lake ice: the role of seiche oscillations” by Georgiy Kirillin et al.

Anonymous Referee #2

Received and published: 5 November 2018

The manuscript entitled “Turbulent mixing and heat fluxes under lake ice: the role of seiche oscillations” from Georgiy Kirillin, Ilya Aslamov, Matti Leppäranta, and Elisa Lindgren presents original results on energy transfers in lake water under ice cover. The wording is very clear and the English much better than I can judge. The paper is well structured and increases the knowledge on the mechanism of the transfer of wind kinetic energy to under-ice turbulence and its importance to the seasonal ice melt. The conclusions of the work may be very useful to improve the parametrizations of the boundary heat flux at the ice base, which are relevant to the sciences of hydrology and Earth System. So in my opinion the paper can be published after some minor improvements. Please see the supplement

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Please also note the supplement to this comment:
<https://www.hydrol-earth-syst-sci-discuss.net/hess-2018-376/hess-2018-376-RC2-supplement.pdf>

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2018-376>, 2018.

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