New wind input term consistent with experimental, theoretical and numerical considerations

Vladimir E. Zakharov¹⁻⁵, Donald T. Resio⁶, Andrei N. Pushkarev^{1,4,5}

We offer new method for determining the wind source term for energy and momentum fluxes transfer from the atmosphere to the wind-driven sea. This new source-term formulation is based on extensive analysis of experimental data collected at different sites around the world. It is shown that this new wind source term is consistent both with numerical solution of exact Hasselmann equation for resonant four-wave interactions and available experimental data.

¹Novosibirsk State University, Russia

²Shirshov Institute of Oceanology of the Russian Academy of Science, Russia

³Department of Mathematics, University of Arizona, USA

⁴Lebedev Physical Institute of the Russian Academy of Science, Russia

⁵Waves and Solitons LLC, USA

⁶Taylor Engineering Research Institute, University of North Florida, USA