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Yuri V Lvov* (lvov@rpi.edu), Department of Mathematical Sciences, Rensselaer Polytechnic Institute, 110 8th street, Troy, NY 12180. *Inverse Cascade in Capillary Waves Turbulence.*

We present an experimental study of surface capillary wave turbulence. In our experiment energy flows not only to small, but also to large scales, thus creating large scale, large amplitude waves. These large scale waves can be seen as a capillary analogue of rogue waves that are sometimes observed in the ocean.

Such energy flux is at odds with previous experiments and with current theoretical picture of capillary wave turbulence.

I will present numerical simulations and theoretical arguments explaining this new and unusual behavior of capillary wave turbulence. (Received February 03, 2014)