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**Dynamics of underwater sand ripples in pulsed flow** JOACHIM KRUITHOF, JOSE EDUARDO WESFREID, PMMH-CNRS — Using a high-definition experimental apparatus, we have obtained results about sand ripples formed by a pulsed flow. We have found a decompaction process linked with the formation of vortex ripples. We have also studied the dynamical properties of the system, such as front propagation speed and global drift speed of the vortex ripples. Finally, we have tested the validity of the Sleath criterion h/lambda = 0.1 in order to discriminate rolling grain ripples from vortex ripples.

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