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**Maria Ntekoume\*** (mntekoume@math.ucla.edu). *Symplectic non-squeezing for the KdV flow on the line.*

We prove that the KdV flow on the line cannot squeeze a ball in  $\dot{H}^{-\frac{1}{2}}(\mathbb{R})$  into a cylinder of lesser radius. This is a PDE analogue of Gromov's famous symplectic non-squeezing theorem for an infinite dimensional PDE in infinite volume. (Received September 06, 2019)