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Lukas Pflug. *Nonlocal conservation laws – Convergence to the Entropy solution of local conservation laws.*

In this talk we will present existence and uniqueness results for nonlocal conservation laws. Nonlocal refers to the fact that the velocity part of the flux function depends on the solution via a convolution. Weak solutions to nonlocal conservation laws are unique and no Entropy condition is required. This is why it is of utmost interest to study the convergence of solutions when the convolution kernel approaches a Dirac distribution. We present recent results for this convergence. We conclude the talk by some numerical examples and a short discussion about open problems and challenges in the field of nonlocal conservation laws. (Received August 29, 2019)