Asymptotic behavior of some nonlocal convection-diffusion equations

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Abstract. We consider the following nonlocal convection-diffussion equation $u_t = \mathcal{L}u - \frac{1}{2}(u^2)_x$, where $\mathcal{L}$ is a nonlocal operator of a convolution type, supplemented with step-like initial conditions. We prove a convergence of solution toward the rarefaction wave, *i.e.* the unique entropy solution of the Riemann problem for the nonviscous Burgers equation.