998-60-146 **Ekaterina T. Kolkovska*** (`todorova@cimat.mx`), Apartado postal 402, Guanajuato, Gto. 36000. *Existence and regularity properties of weak solutions of a fractal Burgers equation with a noise term.*

We consider a one-dimensional fractal Burgers equation perturbed by a white noise term with non-Lipschitz coefficient. Existence and uniqueness of a weak solution cannot be achieved by classical results. We approximate by a discrete version of the equation and obtain existence of a strong solution of the corresponding finite system of SDEs. The tightness of the approximating systems is obtained using Fourier analysis methods. Certain regularity properties of weak solutions are obtained. (Received February 23, 2004)