1052-41-290 **Marco Bertola*** (bertola@mathstat.concordia.ca), 1455 de Maisonneuve St. W, Montreal, Quebec H3G 1M8, Canada, and **Alexander Tovbis**, University of Central Florida, Dept. of Math., 4000 Central Florida Blvd., Orlando, FL 32816-1364. *Universality in the profile of the nonlinear Schrödinger equation at the first breaking curve.*

We consider the zero-dispersion limit of the focusing nonlinear one-dimensional Schrödinger equation with smooth, decaying initial data. The space-time plane subdivides into regions with qualitatively different behavior, with the boundary between them consisting typically of collection of (*breaking curve(s)*). For small time and/or large distance, the asymptotics is ruled by modulation equations (Whitham equations) whereby the amplitude is a smooth function and the phase is fastly rotating at the scale of the dispersion parameter; for any time greater than the *time of gradient catastrophe*, there is a compact subset of the x-axis where the asymptotic solution develops fast, quasiperiodic behavior, and the amplitude becomes fastly oscillating at scales of order ϵ. We study the asymptotic behavior of the left and right edges of the interface between these two regions at any time after the gradient catastrophe. The main finding is that the first oscillations in the amplitude are of nonzero asymptotic size even as ϵ tends to zero, and display two separate natural scales; of order $\mathcal{O}(\epsilon)$ in the parallel direction to the breaking curve in the (x,t)-plane, and of order $\mathcal{O}(\epsilon \ln \epsilon)$ in a transversal direction. (Received August 31, 2009)