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Panagiotis E Souganidis* (souganidis@math.uchicago.edu), 5734 S University Ave, Chicago, IL 60637. *Junction problems for Hamilton-Jacobi and second-order equations*. Preliminary report.

I will discuss viscosity solutions for “junction”-type Hamilton-Jacobi and fully nonlinear second order equations with nonconvex coercive Hamiltonians in one space dimension and study its well-posedness, stability and approximation properties. I will also show that viscosity approximations either select the state-constraint solution or have a unique limit, and we introduce another type of approximation by fattening the domain. This is joint work with Pierre-Louis Lions. (Received January 29, 2017)