1113-35-70 Jerry Bona* (bona@math.uic.edu), Dept Math, Statistics & Computer Science, University of Illinois at Chicago, 851 S. Morgan Street MC 249, Chicago, IL 60607, and Chun-Hsiung Hsia (willhsia@math.ntu.edu.tw), Institute of Applied Mathematical Sciences, National Taiwan University, No. 1, Sec. 4, Roosevelt Rd., Taipei City, 10607, Taiwan. Nonlinear Waves on Trees. Preliminary report.

We will discuss nonlinear, dispersive wave equations defined on tree-like spatial domains. Problems of this nature have arisen as a crude, mathematical model of the human arterial system. We will sketch the derivation and discuss recent work on the long-time well-posedness of such models. (Received August 10, 2015)