1093-35-386 **Rodolfo R Rosales*** (rrr@math.mit.edu), Department of Mathematics, Massachusetts Institute of Technology, Cambridge, MA 02139, and **Benjamin Seibold** and **J-C Nave**. *Model equations for jet schemes.* Preliminary report.

Model equations describe the behavior of numerical schemes in the asymptotic limit when the mesh-size vanishes, and provide information about the nature of the algorithm error in this limit. In particular, they can be used to detect the causes of long wave instabilities (if present), and devise ways to correct them. Because Jet-Schemes use an advect–and–project approach in function space, standard methods for obtaining model equations cannot be used. The numerical solution by a Jet Scheme implicitly carries (small amplitude) grid size structure (as given by the local polynomial interpolant) — modulated on a longer scale by the solution's variations. In this talk we will discuss the model equations for the simple example of a 1-D, 3-rd order jet scheme. (Received August 20, 2013)