1070-65-83 **Jean-Christophe Nave*** (jcnave@math.mcgill.ca), 805 Sherbrooke W., Montreal, QC H3A 2K6, Canada, and **Benjamin Seibold** and **Ruben Rosales**. *High-order, optimally-local schemes for the advection equation.*

I will present a new set of numerical schemes to solve the linear advection equation. These new schemes are semi-Lagrangian and use a Hermite interpolation projection. This combination allows for several interesting properties such as optimal-locality of stencils, high-order, and sub-grid accuracy. I will present third and fifth order versions of these schemes and show applications to interface tracking problems. (Received January 28, 2011)