1128-35-103   **Mihaela Ifrim*** (`ifrim@math.berkeley.edu`) and **Daniel Ioan Tataru**
(`tataru@math.berkeley.edu`). *Well-posedness and dispersive decay of small data solutions for the Benjamin-Ono equation.*

This talk represents a first step toward understanding the long time dynamics of solutions for the Benjamin-Ono equation. While this problem is known to be both completely integrable and globally well-posed in L2, much less seems to be known concerning its long time dynamics. Here, we prove that for small localized data the solutions have (nearly) dispersive dynamics almost globally in time. An additional objective is to revisit the L2 theory for the Benjamin-Ono equation and provide a simpler, self-contained approach. (Received February 17, 2017)