

On Birkhoff coordinates of the Benjamin-Ono equation on the torus and applications to solutions with negative Sobolev regularity. Part 2

Monday, September 2, 2019 11:00 AM (45 minutes)

In this talk I report on joint work with Patrick Gérard and Peter Topalov concerning properties of the flow map of the Benjamin-Ono equation on the torus. The main result says that the flow map, introduced in our previous work on the space $L^2_{r,0}$ of real valued, 2π -periodic L^2 -functions with mean 0, can be extended to the Sobolev spaces $H^{-s}_{r,0}$ for $0 < s < 1/2$. The key ingredient is a corresponding extension of the Birkhoff coordinates to these Sobolev spaces.

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