STEPHEN GUSTAFSON, UBC Dept. of Mathematics, 1984 Mathematics Rd., Vancouver, BC V6T 1Z2
Schroedinger maps near harmonic maps

The Schroedinger map equation is a basic model in ferromagnetism, as well as a geometric (and hence non-linear) version of the linear Schroedinger equation. An important open question is whether finite energy solutions are globally smooth, or blow up in finite time. We describe some results for equivariant Schroedinger maps from $2+1$-dimensional space-time into the 2-sphere, with energy close to the energy of harmonic maps.

This is joint work with Kyungkeun Kang and Tai-Peng Tsai.