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R. L. Jerrard*, rjerrard@math.toronto.edu, and **D. Smets**, smets@ann.jussieu.fr. *On Schrödinger maps from T^1 to S^2 .*

We study aspects of Schrödinger maps from T^1 to S^2 in very weak topologies. For this equation, the space $H^{1/2}$ has critical scaling, and one can verify by explicit examples that the solution map is discontinuous in the H^s topology for all $s < 1/2$. We show that, perhaps surprisingly, the solution map is continuous in the topology of “ L^2 modulo translation” at points u_0 in its domain (i.e., in the space of initial data) such that $u_0 \in H^3(T^1, S^2)$. (Received September 22, 2011)