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Continuous bubbling for the harmonic map heat flow

I will discuss a joint work with Jacek Jendrej and Wilhelm Schlag about the two dimensional harmonic map heat flow for maps taking values in the sphere. It is known that solutions can exhibit bubbling along a well-chosen sequence of times -- the solution decouples into a superposition of concentrating harmonic maps and a body map that accounts for the rest of the energy. We prove that every sequence of times contains a subsequence along which such bubbling occurs. This is deduced as a corollary of our main theorem, which shows that the solution minus the body map approaches the family of multi-bubbles in continuous time.