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Hao Yin, , Peoples Rep of China, and **Changyou Wang***, 150 N. University Street, West Lafayette, IN 47907. *Yang-Mills-Higgs heat flow in dimension three*. Preliminary report.

In this talk, I will describe the heat flow of Yang-Mills-Higgs functional where the base manifold is a three dimensional compact Riemann manifold without boundary and the fiber is a compact symplectic manifold. We will show the Cauchy problem admits a global weak solution for any admissible H^1 initial data. Moreover, the solution is shown to be smooth away from a closed set of locally finite 3-dimensional parabolic Hausdorff measure. This is a joint work with Hao Yin.