1172-35-132 **Ali Hyder**, **Antonio Segatti**, **Yannick Sire** and **Changyou Wang*** (`wang2482@purdue.edu`), 1500 N University Street, West Lafayette, IN 47907. *Existence and partial regularity of heat flow of 1/2-harmonic maps.* Preliminary report.

In this talk, we will discuss the following version of heat flow of 1/2-harmonic maps: Let $u : \mathbb{R}^n \times (0, \infty) \to N$ solve

$$(\partial_t - \Delta)^1/2u \perp T_u N$$

We will establish the existence of global weak solution that is smooth away from a closed set with parabolic Hausdorff dimension no more than (n+1). (Received August 23, 2021)