1138-35-226   **Yohei Fujishima*** (`fujishima@shizuoka.ac.jp`). *Global in time existence of solutions for the heat equation with a superlinear source term.*

This talk is devoted to the study of the global in time existence of solutions for a nonlinear heat equation with general nonlinearity. We introduce a generalization of a self-similar transformation, and exhibit a scale invariant integral under this transformation. As a result, we show the global in time existence of solutions with small initial data. (Received February 10, 2018)