

THE LI-YAU-HAMILTON ESTIMATE AND THE YANG-MILLS HEAT
EQUATION

Artem Pulemotov
The University of Chicago

The talk will focus on two connected subjects. First, we will discuss the Li-Yau-Hamilton estimate for the heat equation on a manifold M with nonempty boundary. Results of this kind play a significant part in the study of geometric flows. Second, we will talk about the Yang-Mills heat equation in a vector bundle over M . Our interest is mainly in the long-time existence of solutions.