

Alejandro Gárriz

Universidad de Granada, España
alejandro.garrizmolina@gmail.com

We will present some new results about the large-times behaviour of solutions of the heat equation posed in the hyperbolic space $\mathbb{H}^d$, paying special attention to the general case of integrable initial data, improving the results of J.L. Vázquez in [1] and answering the questions therein. For such initial data the asymptotic profiles were not even known. We will manage to provide not only the asymptotic profiles, with some unexpected results, but also the speed of convergence of the solutions thanks to the definition and the study of an Entropy natural to the problem. This is a joint work with J.A. Cañizo and D.A. Marín.

Trabajo en conjunto con José Alfredo Cañizo (Universidad de Granada) y Diego Alfonso Marín (Universidad de Granada).

Referencias

[1] Vázquez, J.L. Asymptotic behaviour for the heat equation in hyperbolic space. Communications in Analysis and Geometry (2018)