

When Gronwall inequality is not enough: Some techniques involving the limit behaviour of a particle system

author: Conrado Freitas Paulo da Costa

Instituto Nacional de Matemática Pura e Aplicada (IMPA)

conrado@impa.br

XVIII Brazilian School of Probability

Abstract In this poster we present a short overview of the problem of fluid limits in the context of a independent system of particles. We present a solution using in a simple case using the more intuitive Gronwall technique but when we move to a more general case, we will make use the a more involved technique, the Tightness approach.

Keywords: Independent system of particles Fluid limit, Tightness approach, Gronwall inequality.