## Ypatia 2022 - June 8-10, 2022

## jeudi 9 juin 2022

Abstract: We focus here on one aspect of the Cauchy problem for kinetic equations: the regularity. De Giorgi method which has been introduced to solve the 19th Hilbert problem allows to get Hölder continuity and Harnack inequalities for linear equations with merely measurable coefficients. In kinetic theory this method has been investi- gated but in a non-quantitative way because of one tool of the proof called the intermediate value lemma. We present here a quantitative version of this lemma which makes the De Giorgi method quantitative for the parabolic equation and the kinetic Fokker-Planck one. The second one is a joint work with Clément Mouhot. (19:15 - 19:35)