**Ibrahim Jrad** (Université de Rouen) : Numerical computations of solutions for the homogeneous Boltzmann equation "non-cutoff" and Maxwellian case.

Abstract : It has proved that the Cauchy problem for the fluctuation associated to the non-cutoff spatially homogeneous Boltzmann equation with Maxwellian molecules

$$\begin{cases} \partial_t g + \mathcal{L}(g) = \Gamma(g, g), \\ g|_{t=0} = g(0, v) = g_0 \quad \text{given} \end{cases}$$

has a unique global radial solution  $g \in L^{\infty}(\mathbb{R}^+, L^2(\mathbb{R}^3_{\nu}))$  and this fluctuation around the Maxwellian distribution is exponentially convergent to zero. These two results was proved under some conditions on the initial data. Using symbolic manipulations on the solution and numerical simulations, we obtain some precise numerical behavior of the solutions for large initial data and for measure initial data.