

## **Sub-exponential tails in biased run and tumble equations with unbounded velocities**

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In this talk we are going to present some recent results about the Run and Tumble equations, a kinetic model for the movement of bacteria subjected to the presence of a chemotactic substance. Unlike many previous articles, in this work in collaboration with Emeric Bouin and Josephine Evans, we consider the Run and Tumble equation when the set velocities is the whole space. The distribution  $M$  of post-reorientation velocities is considered to be sub-exponentially or super-exponentially decaying. We also present an ongoing numerical study of the model, carried out with Francis Filbet.

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