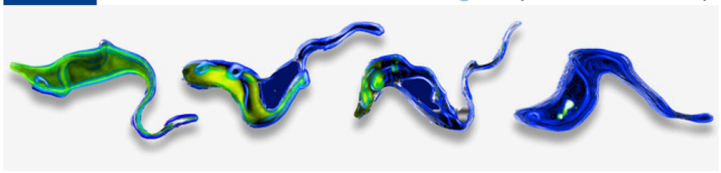

Contribution ID: **31** Type: **PHYMOT contributed talk (20 min)**

Dispersion of motile bacteria in confined and geometrically complex channels

In the laboratory, we built via soft lithography , geometrically controlled micro-fluidic environments of various complexity. We monitor trajectories of motile wild-type E.coli to characterize the mean transport and dispersion processes under flow. We show that the swimming activity of motile species and in particular their specific trajectories in a flow, their interaction with the walls and well as the internal statistical features driving the run-and-tumble process, lead to emerging transport phenomena different from the classical Taylor-Aris dispersion processes for molecular and colloidal species

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