Collective motion in Proteus mirabilis swarms XU HAORAN¹, Shenzhen Research Institute, The Chinese University of Hong Kong; Department of Physics, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong — Proteus mirabilis is a Gram-negative, rod-shaped bacterium. It is widely distributed in soil and water, and it is well known for exhibiting swarming motility on nutrient agar surfaces. In our study, we focused on the collective motility of P. mirabilis and uncovered a range of interesting phenomena. Here we will present our efforts to understand these phenomena through experiments and simulation.

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