On some models related to cellular motion in the macroscopic scale

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Abstract. This talk is devoted to several models of partial differential equations that describe the motion of microorganisms. In particular we will focus on what is called *taxis*, the movement of microorganisms towards or away from an external stimulus. In general *taxis* leads to aggregation whereas the diffusion spreads the organism. The competition between diffusion and taxis will provide either a formation of a singularity in finite time or global regular solution(s).

References

[1] Morales-Rodrigo C. On some models describing cellular movement: the macroscopic scale. *Bol. Soc. Esp. Mat. Apl.* **48** (2009), 83–109.