Optimal Foraging Strategy: Angle Matters\textsuperscript{1} UDO ERDMANN, SEBASTIAN GÖLLER, IGOR M. SOKOLOV, LUTZ SCHIMANSKY-GEIER, Institut für Physik, Humboldt-Universität zu Berlin — We report a theory to describe the motion of zooplankton. In contrast to move just randomly like a classical Brownian particle, zooplankters like Daphnia or Copepods pick their turning angle from a distribution which is far from being Gaussian or equally distributed. This leads to different behavior in the motion compared to normal diffusion. The question which can be asked here is: Is there an evolutionary reason to forage for food in the aforementioned manner? The talk is planned to give an answer into that direction.

\textsuperscript{1}supported by the Collaborative Research Center “Complex Nonlinear Processes of the German Science Foundation (DFG-Sfb555)