Lost in space? Figuring out the spatio-temporal scale of movement processes

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Movement ecology has become a new paradigm in ecological studies, through the identification of categories or compartments that apply to this essential component of life, across taxa and life kingdoms. In parallel, the technological development has allowed to collect an exponential amount of location data, increasingly dense in information- for example at environmental or individual level. This leads us to the consideration that increased opportunities may turn into missed opportunities, if not seen within a theoretical framework that pushes us to ask questions to be robustly answered, in the first place. Among others, the awareness of the spatio-temporal scale at which the movement process occurs is a crucial theoretical turn-around to link the ecological and evolutionary processes. In this talk, I will review some of the theoretical workflows at the basis of movement analysis, and offer a study case to navigate through them.