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\usepackage[T1]{fontenc}
\usepackage[latin1]{inputenc}
\usepackage[a4paper]{geometry}

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% No paragraph indent or paragraph skip
\parindent=0pt \parskip=0pt

\begin{document}

\centerline{\bf Exact Bayesian inference for continuous-time modelling of
animal movement}

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{\bf Keywords:} modelling of animal movement; movement ecology

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{\bf Abstract:}
In this talk I will describe and illustrate some recent progress in
Bayesian inference for continuous-time models of movement. The models
used will include many of those described in Harris \& Blackwell (2013),
which incorporate switching between behavioral states and heterogeneity
in space and time, and also models for interactions between multiple
animals, building on the work of Langrock et al (in press). The inference
uses a Markov chain Monte Carlo approach, exploiting an exact simulation
technique to avoid any approximation or time-discretization error,
despite the complex relationship between location, behaviour and
movement. These ideas will be illustrated using real data on individual
fishers \textit{Martes pennanti} (courtesy of Scott LaPoint, Max Planck
Institute for Ornithology, Konstanz) and on a group of simultaneously-
tracked reindeer \textit{Rangifer tarandus} (courtesy of Anna Skarin,
Swedish University of Agricultural Sciences, Uppsala).

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{\bf References}

Harris, K.J and Blackwell, P.G. (2013) Flexible continuous-time modelling for heterogeneous animal movement. {\it Ecological Modelling}, 255:29-37.

Langrock, R., Hopcraft, J.G.C., Blackwell, P.G., Goodall, V., King, R., Niu., M., Patterson, T.A., Pedersen, M.W., Skarin, A., Schick, R.S., (in press)

Modelling group dynamic animal movement. {\it Methods in Ecology and Evolution}, to appear.

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