

# State-space models

2025-11-28

## Table of contents

Packages . . . . .	1
Tutorials and resources . . . . .	1
Useful papers . . . . .	1
<b>References</b>	<b>2</b>

## Packages

- `aniMotum` -package for state space models (Jonsen et al. 2023)

## Tutorials and resources

### `aniMotum` setting up package and getting started

- <https://github.com/ianjonsen/aniMotum>

## Useful papers

(Jonsen et al. 2023) - `aniMotum` package paper Jonsen, I. D., Grecian, W. J., Phillips, L., Carroll, G., McMahon, C., Harcourt, R. G., Hindell, M. A., & Patterson, T. A. (2023). **`aniMotum`, an R package for animal movement data: Rapid quality control, behavioural estimation and simulation.** *Methods in Ecology and Evolution* / British Ecological Society. <https://doi.org/10.1111/2041-210x.14060>

(Jonsen et al. 2020) - error modeling for Argos data Jonsen, I. D., Patterson, T. A., Costa, D. P., Doherty, P. D., Godley, B. J., Grecian, W. J., Guinet, C., Hoenner, X., Kienle, S. S., Robinson, P. W., Votier, S. C., Whiting, S., Witt, M. J., Hindell, M. A., Harcourt, R. G., & McMahon, C. R. (2020). **A continuous-time state-space model for rapid quality control of argos locations from animal-borne tags.** *Movement Ecology*, 8(1). <https://doi.org/10.1186/S40462-020-00217-7>

## References

- Jonsen, Ian D, W James Grecian, Lachlan Phillips, Gemma Carroll, Clive McMahon, Robert G Harcourt, Mark A Hindell, and Toby A Patterson. 2023. “aniMotum, an R package for animal movement data: Rapid quality control, behavioural estimation and simulation.” *Methods in Ecology and Evolution* / *British Ecological Society*, January. <https://doi.org/10.1111/2041-210x.14060>.
- Jonsen, Ian D, Toby A Patterson, Daniel P Costa, Philip D Doherty, Brendan J Godley, W James Grecian, Christophe Guinet, et al. 2020. “A continuous-time state-space model for rapid quality control of argos locations from animal-borne tags.” *Movement Ecology* 8 (July). <https://doi.org/10.1186/S40462-020-00217-7>.