

Template to prepare preprints and manuscripts using markdown and github actions

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Purpose: This template provides a series of scripts to render a markdown document into an interactive website and a series of PDFs.

Motivation: It makes collaborating on text with GitHub easier, and means that we never need to think about the output.

Internals: GitHub actions and a series of python scrippts. The markdown is handled with pandoc.

Keywords:

pandoc
pandoc-crossref
github actions

Forecasting in ecology.

Forecasting in weather, introduce computers.

Future is uncertain, how do we best act given a forecast?

We have some goal state for the future, and some estimate of what the state of the world will be given a set of actions.

Brief summary of decision theory.

Transition to theme of optimization given unknown information. In face of uncertainty, decision making is an optimization problem.

1

CH1 optimizing sampling of species distributions

- simulate species distribution and efficacy of detection given a set of observation points where the dist from observation site decays.
- optimize set of repeated sampling locations L for a *known* distribution D.
- address SDM not being the territory

2

CH2 optimizing sampling of interactions

- the missing link paper, turn this into optimizing with two different SDMs

3

CH3 optimizing corridor placement

- land cover -> resistance -> extinction time
- simulated annealing to optimize landscape optimization

4

CH4 a software note on the resulting packages.

- Observatories.jl, Corridors.jl, MCD.jl