



Random Sequential Generation of Intervals for the Cascade Model of Food Webs

Yoshiaki Itoh

(Submitted on 23 Jun 2011)

The cascade model generates a food web at random. In it the species are labeled from 0 to m , and arcs are given at random between pairs of the species. For an arc with endpoints i and j ($i < j$), the species i is eaten by the species labeled j . The chain length (height), generated at random, models the length of food chain in ecological data. The aim of this note is to introduce the random sequential generation of intervals as a Poisson model which gives naturally an analogous behavior to the cascade model.

Subjects: **Cellular Automata and Lattice Gases (nlin.CG)**; Populations and Evolution (q-bio.PE)

Cite as: **arXiv:1106.4701 [nlin.CG]**
(or **arXiv:1106.4701v1 [nlin.CG]** for this version)

Submission history

From: Yoshiaki Itoh [[view email](#)]

[v1] Thu, 23 Jun 2011 12:56:53 GMT (6kb)

[Which authors of this paper are endorsers?](#)

Link back to: [arXiv](#), [form interface](#), [contact](#).

Download:

- [PDF](#)
- [PostScript](#)
- [Other formats](#)

Current browse context:

nlin.CG

[< prev](#) | [next >](#)

[new](#) | [recent](#) | [1106](#)

Change to browse by:

[nlin](#)

[q-bio](#)

[q-bio.PE](#)

References & Citations

- [NASA ADS](#)

Bookmark([what is this?](#))

