Physics > Physics and Society

Stochastic modeling of Congress

M.V. Simkin, V.P. Roychowdhury

(Submitted on 21 Jan 2010)

We analyze the dynamics of growth of the number of congressmen supporting the resolution HR1207 to audit the Federal Reserve. The plot of the total number of co-sponsors as a function of time is of "Devil's staircase" type. The distribution of the numbers of new co-sponsors joining during a particular day (step height) follows a power law. The distribution of the length of intervals between additions of new co-sponsors (step length) also follows a power law. We use a modification of Bak-Tang-Wiesenfeld sandpile model to simulate the dynamics of Congress and obtain a good agreement with the data.

Subjects:	**Physics and Society (physics.soc-ph)**; Statistical Mechanics (cond-mat.stat-mech); Adaptation and Self-Organizing Systems (nlin.AO)
Cite as:	**arXiv:1001.3732v1 [physics.soc-ph]**

Submission history

From: Mikhail Simkin [view email]
[v1] Thu, 21 Jan 2010 06:45:23 GMT (79kb)

Which authors of this paper are endorsers?

References & Citations

- CiteBase

1 blog link(what is this?)