

Stochastic modeling of Congress

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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.

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