



The Math Colloquium
Department of Mathematics
San José State University



Svante Linusson
KTH Stockholm/MSRI

The probability of the Alabama paradox

FEBRUARY 8, 2012, MH320

Abstract: There exist several methods to distribute seats proportionally between states (or parties) in a parliament. Historically, at least four different methods have been used in the US. I will first describe each of these methods and discuss their pros and cons.

Hamilton's method was abandoned in the US because of some drawbacks, such as the possibility of the Alabama paradox, but it is still in use in many other countries. In recent work (with Svante Janson) we give, under certain assumptions, a closed formula for the probability that the Alabama paradox occurs, given the relative sizes of the states. From the theorem we deduce a number of consequences.

Background: No particular background is necessary.

About the speaker: Svante Linusson is a professor of mathematics at KTH in Stockholm, Sweden. He works in combinatorics, often in the intersection of other fields (algebra, topology, probability, biology, etc.). In 1998–2002 he served as an elected member of the city parliament of Stockholm, and he has since taken an interest in the mathematics and the fairness of elections.

SNACKS IN MH331B AT 2:30 PM

TALK STARTS AT 3 PM

For more information, see our full schedule at:

<http://www.math.sjsu.edu/~hsu/colloq/>