

UNIVERSITY OF SYDNEY

SCHOOL OF MATHEMATICS AND STATISTICS

Statistics Seminar

Wednesday, 15 November, 2.00pm

Carslaw 173

Chess, Chance and Conspiracy

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Abstract

Chess and chance are seemingly strange bedfellows. Luck and/or randomness have no apparent role in move selection when the game is played at the highest levels. However, when competition is at the ultimate level, that of the World Chess Championship (WCC), chess and conspiracy are not strange bedfellows, there being a long and colorful history of accusations levied between participants. One such accusation, frequently repeated, was that all the games in the 1985 WCC (Karpov vs Kasparov) were fixed and pre-arranged move-by-move. That this claim was advanced by a former World Champion, Bobby Fischer, argues that it at least be investigated. That the only published, concrete basis for this claim consists of an observed run of particular moves, allows this investigation to be performed using probabilistic and statistical methods. In particular, we employ imbedded finite Markov chains to evaluate distributions of select runs statistics. Further, we demonstrate how both chess computers and game databases can be brought to bear on the problem.

No knowledge of chess is assumed – we touch on poker, go, checkers, baseball, basketball, parapsychology and cosmology so hopefully there is something for everyone.

Enquiries about the Statistics Seminar should be directed to Marc Raimondo (marcr@maths.usyd.edu.au)