

STANFORD UNIVERSITY
DEPARTMENT OF STATISTICS
DEPARTMENTAL SEMINAR

4:15 p.m., Tuesday, June 28, 2005
Sequoia Hall Room 200
(Cookies at 3:45 in 1st Floor Lounge)

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CHESS, CHANGE AND CONSPIRACY

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 run statistic distributions. Further, we demonstrate how both chess computers and game databases can be brought to bear on the problem.