

1014-46-1124 **Keith M Ball*** (kmb@math.ucl.ac.uk), Department of Mathematics, University College London,
Gower Street, London, England. *How Markov chains reflect geometry.*

This talk will complement the talk of Assaf Naor. The aim will be to give an overview of how Markov chains (and in particular the notions of Markov type and cotype) have provided a proof of the non-linear Maurey Extension Theorem, conjectured in the early 80's by Johnson and Lindenstrauss. The theorem is as follows. If $1 < p \leq 2 \leq q < \infty$ and $f : X \rightarrow L_p$ is a Lipschitz map defined on a subset X of L_q , then f has a Lipschitz extension to the whole of L_q . (Received September 27, 2005)