1038-60-199   **Sourav Chatterjee***, 367 Evans Hall #3860, Department of Statistics, Berkeley, CA 94720-3860.
A different approach to strong embeddings.

The Komlos-Major-Tusnady embedding theorem, that gives the 'best possible' coupling of a discrete random walk with a Brownian motion, is widely considered to be one of the landmark results in probability theory and also possibly one of its most important. The proof, however, is notoriously heavy-handed and hard to check. In this talk I will present a soft functional-analytic proof of this theorem for the case of the simple random walk. This new proof, unlike the old one, seems generalizable to situations involving complex dependencies as in models from statistical physics (I will give some examples from an ongoing work). (Received February 10, 2008)