1056-A0-5 **Dusa McDuff***, Barnard College, Columbia University, New York, NY 10027. *Symplectic embeddings and continued fractions.*

It has been known since the mid eighties that embedding problems lie at the heart of symplectic geometry.This talk will start with a general discussion of such problems, mentioning various recent generalizations of Gromov's nonsqueezing theorem and of the symplectic capacities introduced by Ekeland and Hofer.It will end with a description of recent joint work with Schlenk about embedding four-dimensional ellipsoids. This turns out to have interesting connections with the properties of continued fractions. (Received March 25, 2009)