# Temple Mathematics — Start Of Semester Talk

## David Futer

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will speak on

## The Rental Harmony Theorem

ABSTRACT: The rental harmony theorem (proved by Francis Su a decade ago) is quite possibly the most practically useful theorem that I have come across. Suppose that $n$ housemates are renting a house that has $n$ unequal rooms. The theorem says that under mild hypotheses, there is a way to partition the total rent into rents for the individual rooms, such that every housemate will prefer a different room. Furthermore, it provides an algorithm to find this harmonious partition of the rent. I will explain the theorem and its proof.

Monday, 20 September 2010
Lecture at 4:00 pm
Coffee, tea, and refreshments from 3-5 pm
Room 617, Wachman Building
Department of Mathematics