

BI-CO MATHEMATICS
COLLOQUIUM

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“The Rental Harmony Theorem”

Monday, April 23, 2012

Talk at 4:00 – Park 328
Tea at 3:30 – Park 355, Math Lounge

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 distinct room. Furthermore, it provides an algorithm to find this harmonious partition of the rent. I will explain the theorem and its proof.

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