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# Food For Thought Seminar

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UCSD

## Fun with Banach-Tarski, paradoxical decompositions and amenability

**Abstract:**

Have you always wondered how the Banach-Tarski paradox - namely cutting a ball into pieces and assembling those pieces into two balls - actually works? Or what the mathematical reason behind it is? In this talk we will answer those questions by 1) reformulating the Banach-Tarski paradox, 2) explaining what paradoxical decompositions of various objects are, 3) constructing one for a ball, and 4) motivated by all those things introducing the concept of amenability, which has its origin in the aforementioned paradox and is ubiquitous in many areas of mathematics nowadays.

**Monday, November 7, 2016**

**12:00 PM**

**AP&M 7421**

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