

“There was a lot more to magic, as Harry quickly found out, than waving your wand and saying a few funny words.”

—Harry Potter and the Philosopher’s Stone

# THE TRIVIAL NOTIONS SEMINAR

**Rafael M. Saavedra**

will speak on

## **Fiat lux (The Illumination Problem)**

### ABSTRACT

Given any two billiard balls placed on a billiard table, is it possible to hit one ball so that it eventually collides with the other one? Or alternatively: if we light a candle inside a room with mirrored walls, will it illuminate the entire room? This question is called the *illumination problem* and lies in the field of billiard dynamics. I will explain how it relates to dynamics on the moduli space of holomorphic differentials. At the end, I will present a short solution to the illumination problem which relies on work done by Harvard faculty, postdocs, and graduate students.

**Tuesday, March 22, 2022**

**at 1:30 pm**

**Science Center, Room 507**