



## SÉMINAIRE

# IS THERE A SIMPLE SOLUTION TO THE TWO ENVELOPE PROBLEM?

**13 juillet 2021**

LEMMA - Salle de séminaire au rez-de-chaussée (4 rue Blaise Desgoffe, 75006 Paris)

ACCÈS LIBRE - PLUS D'INFOS  
[ASSAS-UNIVERSITE.FR](https://assas-universite.fr)

## LEMMA

Le Laboratoire d'économie mathématique et de microéconomie appliquée ([LEMMA](#)) organise un séminaire, le mardi 13 juillet à 16h, sur le thème : ***Is There a Simple Solution to The Two Envelope Problem?***

Une présentation de [Ned MARKOSIAN](#), professeur à l'université du Massachusetts à Amherst

**Abstract:** *The Two Envelope Problem is a classic problem in decision theory for which there is no agreed-upon solution. (The problem: You are shown two envelopes and told that they each contain some money, with one containing twice as much as the other. You randomly choose an envelope. Then you are offered a chance to trade for the other one. You reason as follows. "For some number,  $n$ , my envelope contains  $n$  dollars. There is a .5 probability that the other envelope contains  $2n$  dollars, and a .5 probability that it contains  $.5n$  dollars. Hence, according to the standard way of calculating expected utilities in decision theory, the expected utility of trading =  $(.5 \times 2n \text{ dollars}) + (.5 \times .5n \text{ dollars}) = 1.25n \text{ dollars}$ . So I should trade." This is clearly the wrong result. But what exactly is the mistake in the reasoning that leads to this conclusion?) In a 2011 paper, I proposed a simple solution to this problem, and in this talk I will raise some questions about whether my proposed solution actually works.*

Le séminaire se déroulera en anglais.

*Tous les événements organisés par l'université se déroulent dans le respect strict du protocole sanitaire en vigueur avec port du masque obligatoire, respect des gestes barrières et de la*



*distanciation sociale.*