

# Joint Math Colloquium

**Millersville University and Franklin & Marshall College**

Speaker: **Dr. Wing Hong Tony Wong**  
**Department of Mathematics**  
**Kutztown University of Pennsylvania**

Topic: **From Conways puzzle to integer partitions with equal products**

Date: **February 21, 2019 (Thursday)**

Time: **4 – 5 p. m.**

Place: **Room 201, Wickersham Hall, Millersville University**

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## *Abstract*

Here is a fun riddle, commonly known as the “Conway’s wizard puzzle”, proposed by a famous mathematician John Conway in the 1960s.

Last night I sat behind two wizards on a bus and overheard the following:

Blue Wizard: I have a positive integer number of children, whose ages are positive integers. The sum of their ages is the number of this bus, while the product is my own age.

Red Wizard: How interesting! Perhaps if you told me your age and the number of your children, I could work out their individual ages?

Blue Wizard: No, you could not.

Red Wizard: Aha! At last, I know how old you are!

Apparently the Red Wizard had been trying to determine the Blue Wizard’s age for some time. Now, what was the number of the bus?

There are a lot of interesting mathematics behind this riddle, and we are going to uncover some of them in this talk.

# All are Welcome