DAILY NEWS



International Workshop on Noncommutative Geometry (NCG2005) 10th issue, September 22, 2005

# A physicist's view of a mathematician's proof



#### Proof by intimidation

contributed by an anonymous physicist

### Anahita strikes back!

I was delighted that there is at least one smart mathematician (Joachim Cuntz) who reportedly solved my puzzle. So I challenge you to another one from my nearly infinite collection. I will present it to you as a puzzle and see if anyone can figure it out:

You choose any two distinct integers and write them on two cards. Place the cards face down on a table. I will choose one of the cards and turn it over. Then I will tell you whether the other number is smaller or larger. The point is that my success rate will be strictly better than 50%. How do I do it? There is a mathematical algorithm involved. No cheating, psychology or gimmicks! Let me know if you can figure this out! Good Luck.

## **Contributed Anecdotes to the Workshop**

Teacher: "Who can tell me what 7 times 6 is?" Student: "It's 42." Teacher:" Very Good! And who can tell me what 6 times 7 is?" Student:" It's 24."

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A puzzle by Leonardo Cano: What is the super hero of an algebraist?

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A policeman stops Heisenberg and asks him: "Do you know how fast you were driving?" He replies: "I have no idea, but I can tell you exactly where I am."

Jorge Plazas Vargas

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The four stages in the life of a physicist:

- 1) Nobody quotes you.
- 2) Witten quotes you.
- 3) Everybody quotes you
- 4) Everybody quotes Witten.

Matilde Marcolli



Answer on the last page!

Kurush Ebrahimi-Fard

Answer on the last page

















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Answer to Puzzle by Leonardo Cano: The Lord of the Rings.

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Answer to the puzzle about Bourbaki: A. And here is a lot more for those who care: Realization of  $E_6$  as differential operators of a 27 dimensional commutative algebra. (For more details contact Mariusz Wodzicki.)

O TI diagram of for e6 A weight ¢26 -- trivial module 25  $O_1 = S^+$  positive half-spinors for so(10)  $\mathcal{O}_2 = V$ holomorphic discrete series Dynkin diagram . Kostant modules Exceptional type  $E_6$ 

Realization of  $E_7$  as differential operators of a 56 dimensional commutative algebra. (For more details contact Mariusz Wodzicki.)



## The Geometry of Space



- 1. impossible triangle
- 3. impossible object
- 5. Escher posthorn design
- 7. sculpture 'Expansion'
- 9. Möbius strip

- 2. Escher's impossible cube
- 4. sculpture 'Continuity'
- 6. Escher with mural
- 8. German pavilion

