MANY CHEERFUL FACTS

presents

Moonshine for Beginners.

a talk by Scott Carnahan

1:10 pm - 2:00 on Wednesday, August 31st, in room 1015.

Moonshine is the study of strange connections between the representations of the monster simple group, modular functions, and possibly other subjects like string theory. The initial motivation for trying to put these seemingly separate fields together mostly came from equations like

$$196883 + 1 = 196884.$$

The summands on the left side are the dimensions of the smallest irreducible representations of the monster, and the right side is the linear term in the q-expansion of the modular function j, which classifies elliptic curves over $\mathbf{C}$. This will be a friendly talk, so no knowledge of representations or modular functions will be assumed.

∘ Check out the MCF website: http://math.berkeley.edu/∼brownda /cheers/

I am the very model of a modern Major General,
I've information vegetable, animal, and mineral,
I know the kings of England, and I quote the fights historical
From Marathon to Waterloo, in order categorical;
I'm very well acquainted, too, with matters mathematical,
I understand equations, both the simple and quadratical,
About binomial theorem I'm teeming with a lot o' news,
With many cheerful facts about the square of the hypotenuse!

- Gilbert & Sullivan $P \circ P$