

# MANY CHEERFUL FACTS

presents

## Buckyballs, Glass, and Origami: A Talk for Your Fingers

a talk by Anton Geraschenko

12:10 am - 1:00 on Wednesday, February 2th, in room  
1015.

If you like making pretty paper models or if you have ever had a strong desire to generalize the soccer ball, come to this talk. We'll classify spherical buckyballs and learn how to properly edge-color them. Then we'll segue into glasses.

On a microscopic scale, the molecules in a glass look just like the molecules in a fluid, but the glass moves really slowly. Interestingly enough, it is possible to do thermodynamics on edge-colored systems like buckyballs, and they exhibit a weird glassy phase transition, where the dynamics slow down, but no crystalline structure appears.

We'll start folding and assembling the models early (11:30). The math will begin at 12:10.

*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  $P \circ P$