DEPARTMENT OF PHYSICS

This Week in Physics

SYRACUSE UNIVERSITY
College of Arts & Sciences

Week of
October 6, 2008
http://www.phy.syr.edu/SeminarsEvents.htm

DEPARTMENT OF PHYSICS

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THURSDAY, OCTOBER 9

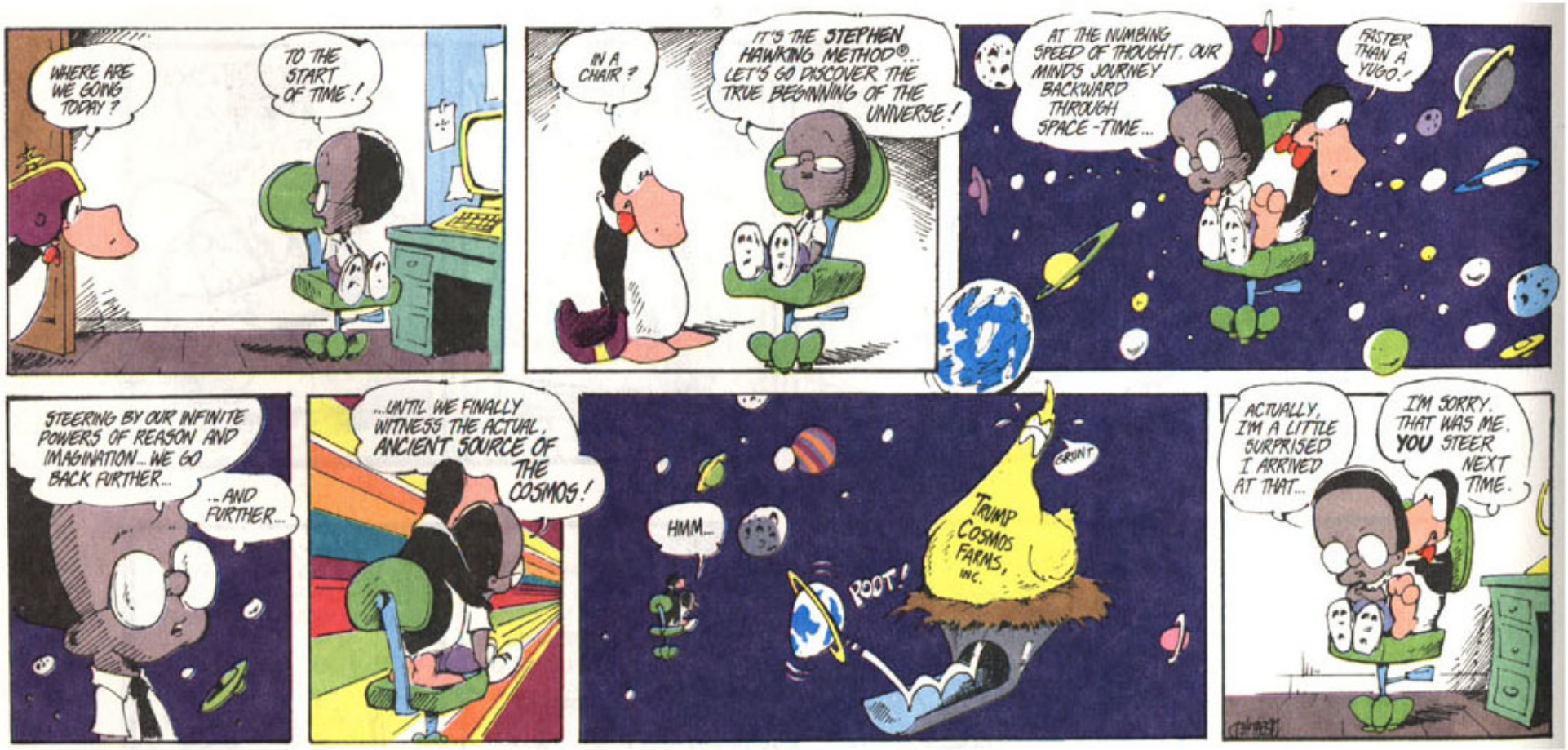
Colloquium
4:00 PM, Rm 202 (refreshments 3:30 PM, Rm 204)
Prof. G. Baskaran (IMSc, Chennai)
Quantum Complexity in Graphene

Properties of living and non-living matter, complex and mostly incomprehensible, seem to arise from a combination of only a few types of chemical bonds among atoms. One such `sp2 bond' among carbon atoms does wonders in simple graphene, a basic component of our pencil tip. Graphene, a two dimensional net of just carbon atoms, has caught the attention of physics community recently, through its surprising variety of quantum mechanical behavior. We will get a glimpse of the quantum complexity. I will also discuss briefly our own predictions of certain novel behavior in graphene: a realization of i) Lorentz contraction and time dilatation like phenomena, in a totally non-relativistic context ii) Composite fermi sea in neutral graphene, iii) unconventional Kondo phenomena and iv) a signal for very high Tc superconductivity in charged graphene.

FRIDAY, OCTOBER 10

Condensed Matter/Biological Physics Seminar
11:00 AM, Rm 202
Prof. Carolina Ilie (SUNY Oswego)
Water Interactions with Crystalline Polymers with Large Dipoles

Joint Relativity/Cosmology/High Energy Physics Seminar
2:30 PM, Rm 202
Prof. Martin Bojowald (Penn State U.)
Quantum gravity, space-time structure and cosmological implications


WHERE ARE WE GOING TODAY?
TO THE START OF TIME!
IN A CHAIR?
IT'S THE STEPHEN HAWKING METHOD®... LET'S GO DISCOVER THE TRUE BEGINNING OF THE UNIVERSE!
AT THE NUMBING SPEED OF THOUGHT, OUR MINDS JOURNEY BACKWARD THROUGH SPACE-TIME...
FASTER THAN A YUGO!
STEERING BY OUR INFINITE POWERS OF REASON AND IMAGINATION... WE GO BACK FURTHER...
...AND FURTHER...
...UNTIL WE FINALLY WITNESS THE ACTUAL, ANCIENT SOURCE OF THE COSMOS!
HMM...
ROOT!
TRUMP COSMOS FARMS, INC.
GRUNT
ACTUALLY, I'M A LITTLE SURPRISED I ARRIVED AT THAT...
I'M SORRY. THAT WAS ME. YOU STEER NEXT TIME.