

PHYSICS NEWS FLASH

**Room at the Top
UT Physicists Figure in Leading Physics Stories of
2005**

December 23, 2005

UT's physicists are involved in some of the year's biggest physics breakthroughs, primarily for their obsession with all things small.

The American Institute of Physics announced the top physics stories of 2005 early this month. Chief among them is consensus that the aftermath of the big bang didn't result in a gaseous blend of quarks (the building blocks of matter) and gluons (the particles that hold them together). Rather, they now believe the quark-gluon mix was more like a liquid. The idea emerged from experiments at RHIC (the Relativistic Heavy Ion Collider) on Long Island. UT's Relativistic Heavy Ion Physics Group, lead by Soren Sorensen and Ken Read, is part of this research program.

Other top stories were the observation of geoneutrinos (which won fame as a *Nature* cover story in July and involved UT scientists Mikhail Batygov, Bill Bugg, Yuri Efremenko, Yuri Kamyshkov, and Alexandre Kozlov) and the zeptogram mass sensitivity in a cantilever sensor—allowing scientists to weigh molecules one at a time. This technology was built in part on contributions from the ORNL Nanoscale Sciences and Devices Group (many group members have appointments in the physics department).