

# T<sub>C</sub>SUH Special Seminar

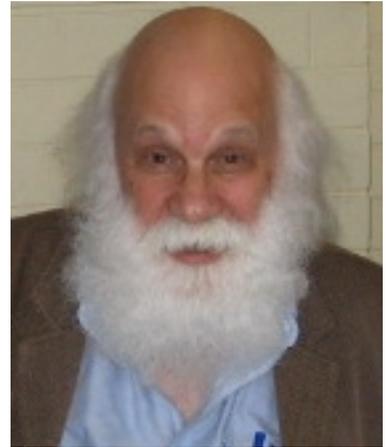
Texas Center for Superconductivity at the University of Houston

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## The 1-D BOSE GAS

**Wednesday, April 11, 2007**

Room 102, University of Houston Science Center

11:00 a.m. – 12:00 p.m.

### Abstract

The one dimensional delta function Bose gas is a classic system in the quantum many body problem. It has excited much study, with seminal contributions from theoretical physics and mathematics, over the past five decades.

The wonderful advent of exceedingly low temperature cryogenics has brought the Bose gas into prominence. Very recently, with the application of sophisticated anisotropic traps, the Bose gas can be fashioned into a genuinely 1-D configuration, thus bringing this 1-D Bose gas into the special spotlight experimentally.

In the light of our recent works, we will focus on the density matrix and concomitantly the occupation numbers [distribution function] along with the pair correlation function and concomitantly the structure factor. These are the signature quantities of the Bose gas.

*Persons with disabilities who require special accommodations in attending this lecture should call (713) 743-8210 as soon as possible.*



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