



**TIFR Centre for Interdisciplinary Sciences,
Narsingi, Hyderabad 500075**

Colloquium

**Speak, Memory!
What can a material memorize?**

Sidney Nagel

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Abstract: Out-of-equilibrium disordered systems may preserve a memory of external driving that can be read out at a later time. I will present one form of memory that does this in a remarkable fashion. The system remembers multiple values from a series of training inputs yet forgets nearly all of them at long times despite a continual repetition of the inputs. However, if noise is added to the system, all the memories can be preserved indefinitely. This provides a concrete example of “plasticity” in memory formation. Despite these surprising features, the cause of this memory formation is easily understood and appears to be generic.

Date: Friday, December 21st 2012

Time: 4:00PM (Tea/Coffee at 03:30PM)

Venue: Conference Hall, TCIS

All are cordially invited