Summary of Indian Strings Meeting 2007

Sunil Mukhi, TIFR

HRI, Allahabad
October 15-19 2007

Outline

Conference Statistics

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  4×90 minutes

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- At four full days (Monday afternoon – Friday lunch) this must be the shortest ISM ever!

- The scorecard for the talks was as follows:

Institute	Faculty	Postdocs	Students	Total
HRI	4	3	5	12
TIFR	3	3	2	8
IIT-K	1	0	1	2
Utkal	1	0	0	1
IIT-R	1	0	0	1
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IACS	0	0	1	1
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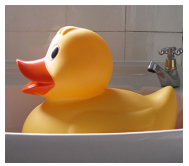
- IOPB, IMSc and SINP were out for a  !

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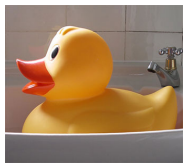
- IOPB, IMSc and SINP were out for a  !
- South Zone and East Zone were very scarcely represented.

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- Three talks were about connecting String Theory to the real world:
- Avinash Dhar: AdS/QCD and χSB.

  Can one recover the structure of low-energy QCD (spectrum, symmetries, dynamical phenomena such as chiral symmetry breaking) using some string background? Sakai-Sugimoto model using $D4$ and $D8 - \overline{D8}$ branes is the current favourite. Avinash proposed to include the effect of the $D8 - \overline{D8}$ tachyons condensing.

- Sudhakar Panda: Moduli stabilisation and brane inflation.

  D-brane inflation in warped conifold background. Most moduli stabilised a la KKLT. Authors find two-field description of inflation is more appropriate and gives significantly different results from previous treatments.

- Spenta Wadia: Gauge theories, viscous fluids and black holes.

  Reviewed the application of AdS/CFT to finite temperature field theory. Hydrodynamic modes in field theory get related to black brane modes, and there is a striking "universal viscosity bound" conjecture. This work is largely motivated by the desire to describe the physics of quark-gluon plasmas at RHIC. However, it could also teach us more about black holes.

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- In the talk, the possible relevance to information loss was stressed. This is an interesting issue on which it remains to be seen if progress will be made.

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- Ashoke Sen: Black holes in $\mathcal{N} = 4$ supersymmetric string theories.

  Typically masterful and comprehensive discussion of state counting in $\mathcal{N} = 4$ compactifications. Beautiful 3-part derivation of the counting formula using $D1$, $D5$ and KK monopoles. Result agrees with old DVV conjecture. Refinement of conjecture, in that leading degeneracy shown to be universal but subleading part jumps across walls of marginal stability. The jumps are ascribed to two-centred black holes "flying apart".

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- Rahul Nigam: Dyon death eaters.

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- Bhupendra Tiwari: Thermodynamic geometry of BTZ black holes

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- Ayan Mukhopadhyay: Worldsheet properties of extremal correlators in AdS/CFT.

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- Takehiro Azuma: Monte Carlo studies...

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- Yogesh Srivastava: Dynamics of supertubes.

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- Aalok Misra: Say (Swiss) cheese!

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- And especially Dileep Jatkar who has shouldered most of the responsibility and taken care of us all in his characteristically modest and efficient manner.