

# *Topology and Differential Geometry in Quantum Physics*

One Day @ IMSC @ 50 MEETING

14<sup>th</sup> March, 2012



# PLAN

- 1 *Institute*
- 2 *Inauguration*
- 3 *Institute later*
- 4 *Institute even later*
- 5 *Visitors*
- 6 *Visitors*
- 7 *Visitors*
- 8 *Early grads*
- 9 *A P Balachandran, IMSc, Chennai*
- 10 *Romesh K Kaul, IMSc, Chennai*
- 11 *Suresh Govindarajan, IIT Madras, Chennai*
- 12 *V Parameswaran Nair, CUNY, New York*
- 13 *R Shankar, IMSc, Chennai*



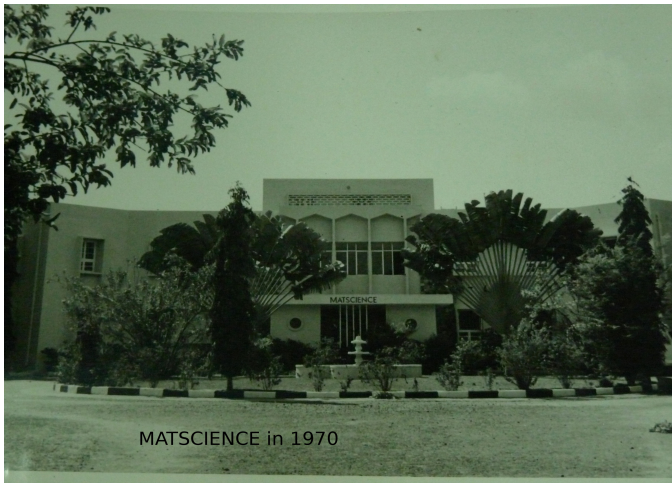
# The Institute



# *The Institute Inauguration*



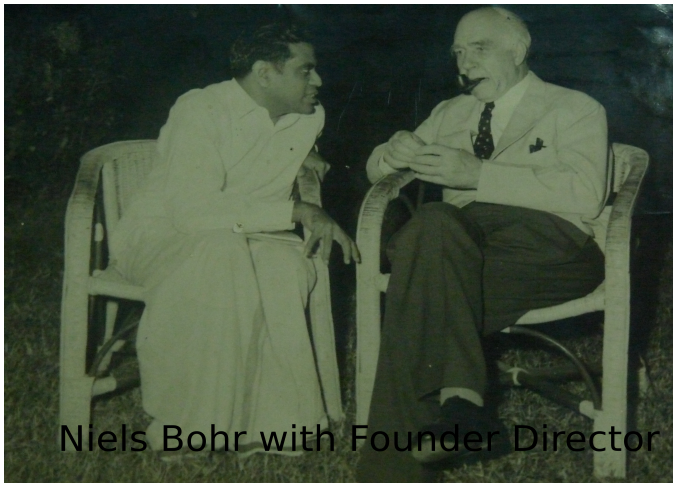
# *The Institute in 1970*



## *Institute - Recent*



# Visitors



Niels Bohr with Founder Director

# Visitors



# Visitors



# Early grads - Retiring



## *A P Balachandran, IMSc, Chennai*

- After graduating from Madras University under Alladi Ramakrishnan went as Post Doc at Theoretische Physik, Universitaet Wien with Walter Thirring + Enrico Fermi Institute and later became a faculty at Syracuse University and continuing.
- Joel Dorman Steele Professor at Syracuse University & Visiting professor at IMSc.
- QFT, High Energy Physics, Group theory, Topological and Differential geometry in classical and quantum physics
- Several books.
- Recent interests: Noncommutative geometry, Blackholes, Geometry and Gravity,  $C^*$  Algebraic formulations of QFT...



## APB - Graduate student



## *Romesh K Kaul, IMSc, Chennai*

- Did Graduate studies at Delhi University under Prof A N Mitra. Post doc at Texas University at Austin.
- Joined CTS, IISc Bangalore: Became professor at CTS and was at IISc till 1992 ?
- Moved to IMSc and has been inspiring the HEP group on issues of QFT, Supersymmetric field theories, Topological field theories, Application of Physics to Mathematics, 3- manifold invariants, blackholes.
- Member of Academies.
- Recent interests: Topological issues in Gravity, ..



## *RKK- Puri Meeting at Toshali Sands*



## *Suresh Govindarajan, IIT Madras, Chennai*

- Studied in B. Tech (electronics) at IIT Madras and moved to Physics at U. Penn, Philadelphia
- Graduated (1991) from there under Prof Burt Ovrut
- Post doc at IMSc, TIFR
- Joined IIT Madras, Now a Professor at IIT M.
- Interested in all issues of string theory, AdS/CFT, Blackhole states counting, quiver gauge theories,...



## *Suresh - Rajaji National Park- Roorkee meeting*



## *V Parameswaran Nair, CUNY, New York*

- Studied in Kerala University Trivandrum, Moved to Syracuse University for graduate studies. Did doctoral program under Prof Balachandran.
- Research Associate at Princeton and Santa Barbara.
- Became faculty at Columbia University before moving to City College of City University of NY. Now Distinguished Prof. at City college of CUNY.
- Research: Theoretical and Mathematical Physics, High Energy and Elementary Particle Physics, gauge theories, Differential geometric and Topological Issues of Gauge theories, matrix Models...



# *Nair at Dublin - quaternions under Hamilton bridge*



## *R Shankar, IMSc, Chennai*

- Studied at Delhi IIT, Graduation at TIFR under Prof Spenta Wadia.
- Post doc at IMSc, Later became faculty here at IMSc (1991).
- Started as High Energy Physics, Moved to condensed Matter Physics with his expertise in Low dimensional field theories
- Now professor here at IMSc with varied interests from CMT, Glaciers, Topological and geometric issues in spin systems, quantum Hall effect, Graphene,, Quantum information...



## *Young Shanks in my office*

