The Institute of Mathematical Sciences
CIT Campus, Chennai 600113

Subhashis Nag Memorial Endowment Lecture

The Institute of Mathematical Sciences, Chennai, welcomes you for the Nag Memorial Lecture to be held as per details given below:

Speaker:	**Professor Georg Schumacher**
	University of Marburg, Germany
Title:	**Differential geometric properties of Teichmüller**
	and moduli spaces
Date/time:	**Wednesday, 3rd March, 2010, at 15:30 hrs**
Venue:	**Ramanujan Auditorium, IMSc.**

Abstract: There has been a considerable influence of Complex Geometry to the theory of Teichmüller and moduli spaces of Riemann surfaces. Wolpert's identification of the Weil-Petersson and Fenchel-Nielsen symplectic forms reflects the relationship between the respective geometries. We present an approach from the theory of Kähler-Einstein manifolds and from deformation theory. In this sense path integrals along closed geodesics replace Poincaré series and automorphic forms. Our purely differential geometric approach also applies to cases where the original methods do not, i.e. the Teichmüller and moduli spaces of weighted punctured Riemann surfaces. The latter are equipped with a hierarchy of compactifications depending upon the weights. We construct and study a Weil-Petersson geometry which is induced by hyperbolic metrics with conical singularities on the fibers.

About the speaker   Professor Georg Schumacher did his PhD at University of Munster, Germany, in 1974, under the guidance of Reinhold Remmert. He has made important contributions in the theory of analytic spaces, particularly Teichmüller theory and moduli spaces.

He will be in residence at the Institute during the month of March 2010.

About The Subhashis Nag Memorial Endowment Lectures   Subhashis Nag Memorial Endowment Lectures was instituted in the year 2002

through the generous contribution of Mrs. Sutapa Nag, widow of Subhashis Nag. It aims to promote research in mathematical sciences by inviting to the Institute of Mathematical Sciences, Chennai, an eminent mathematical scientist, one each year, to deliver a series of lectures. The first of these lectures is designated the Subhashis Nag Memorial Endowment Lecture.

About Prof. Subhashis Nag Professor Subhashis Nag was born on 14th August 1955. He obtained his Ph.D. from Cornell University, New York. He joined the Institute of Mathematical Sciences, Chennai, in 1991. He worked in the area of complex analytic geometry, particularly, Teichmüller theory and its relations to string theory. He won the coveted S. S .Bhatnagar award but, unfortunately, he died, in December 1998, before the actual award ceremony was held.

List of Previous speakers:

Month & Year	Speaker	Title
December 2002	Dr. Dennis Sullivan CUNY Graduate Center New York, USA	String topology
December 2003	Dr. Ashoke Sen Harish-Chandra Research Institute, Allahabad	Search for a unified theory
January 2005	Dr. Cliffor Earle Cornell University Ithaca, N.Y., USA.	Variation of conformal invariants under holomorphic motions
December 2005	Dr. Bernard de Wit University of Utrecht The Netherlands	Black hole entropy from M-theory and supergravity
January 2007	Dr. M. S. Narasimhan Indian Institute of Science Bangalore	Conformal Blocks and theta functions
January 2008	Dr R. C. Penner Univ. Southern California Los Angeles, USA	From punctured surfaces to punctured solenoid
December 2008	Dr. R. Gopakumar HRI, Allahabad	What on earth is string theory?

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