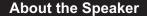# Lecture-Series on Quasiconformal Mappings
Department of Mathematics and Statistics
IIT Kanpur

Quasiconformal mappings are generalizations of conformal mappings. They can be considered not only on Riemann surfaces, but also on Riemannian manifolds in all dimensions, and even on arbitrary metric spaces. Quasiconformal mappings occur naturally in various mathematical and often a priori unrelated contexts. The importance of quasiconformal mappings in complex analysis was realized by Ahlfors and Teichmüller in the 1930s. Ahlfors used quasiconformal mappings in his geometric approach to Nevanlinna's value distribution theory. He also coined the term "quasiconformal" in his 1935 work on Überlagerungsflächen that earned him one of the first two Fields medals. Teichmüller used quasiconformal mappings to measure a distance between two conformally inequivalent compact Riemann surfaces, starting what is now called Teichmüller theory.

The goal of this lecture series is to give an introduction to the theory of quasiconformal mappings. In particular, the series will introduce the geometric and analytic definition of quasiconformality, and prove the famous measurable Riemann mapping theorem. Later, quasiconformal mappings on Riemann surfaces shall also be introduced. Finally extensions of quasiconformal mappings and their connection to holomorphic motions will also be discussed..

Organized By
Department of Mathematics & Statistics
Indian Institute of Technology Kanpur

Date and Time
February 27 to March 03, 2023
11:30 AM to 01:00 PM

Venue
L-13 on first day and
TB-103 all the rest days.

Contact Person
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About the Speaker

Dr. Pranav Haridas is an assistant professor of mathematics at Kerala School of Mathematics in Kozhikode. His research interests broadly lie in the area of Complex Analysis. He completed his B. Math. (Hons.) from ISI Bangalore and an ALGANT Masters from Università di Padova and Université Paris-Sud. He did his Ph.D. from IISc Bangalore under the supervision of Prof. Kaushal Verma.