



THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

**SEMINARS ON PURE MATHEMATICS**

By

**Dr. Baojun WU**

**BICMR**

Talk 1 at 1430 -1600	<p><b><i>Introduction to Liouville conformal field theory</i></b></p> <p><b><u>Abstract:</u></b> In this talk, I will review the recent progress of Liouville conformal field theory from the path integral point of view developed by Vargas, Rhodes, Guillarmou and Kupiainen: including the structure constant (The DOZZ formula), the Segal axiom, also its representation theory.</p>
Talk 2 at 1630 -1730	<p><b><i>Irreducibility of Virasoro representations in Liouville CFT</i></b></p> <p><b><u>Abstract:</u></b> An initial assumption in the physics treatment of Liouville theory, proposed by Zamolodchikov brothers', is the highest weight representation is always irreducible. We construct the Hilbert space of Liouville theory and prove this conjecture. This is based on joint work with Guillaume Baverez. <a href="https://arxiv.org/abs/2312.07344">https://arxiv.org/abs/2312.07344</a></p>

**Date : 22 May 2024 (Wednesday)**

**Time : 2:30p.m. – 5:30p.m.**

**Venue: Room 4579 (Lifts 27/28)**

*All are Welcome!*