



**THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY**

**Department of Mathematics**

**SEMINAR ON PURE MATHEMATICS**

**Open r-spin and FJRW theories and the point  
insertion technique**

by

**Prof. Ran Tessler**

Weizmann Institute of Science

**Abstract**

I will start by recalling the r-spin and FJRW theories (in the closed setting). I will then briefly review an open analog constructed by Buryak-Clader and myself of an r-spin theory with a single type of boundary state, and a FJRW generalization of it by Gross-Kelly and myself. I will then describe a new construction by Zhao and myself, which allows more general types of boundary twists. These theories are candidates for open theories whose existence was conjectured by Hori and by Walcher-Aleshkin-Liu. Our new technique is interesting on its own right, and if time permits I'll show how it might be useful to define a whole variety of new open theories, open GWs and open Hodge. Based on joint works with Yizhen Zhao.

**Date : 16 April 2024 (Tuesday)**

**Time : 4:00pm – 5:30pm**

**Zoom ID: 958-476-4665**

**Passcode: openthy**

*All are Welcome!*