



THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

## **SEMINAR ON PROBABILITY**

### **The singularity of combinatorial matrices**

By

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#### Abstract

Let  $Q_n$  be a random  $n$  by  $n$  matrix with entries in  $\{0,1\}$  whose rows are independent vectors of exactly  $n/2$  zero components. We show that the probability that  $Q_n$  is singular is exponentially small, which is optimal up to a multiplicative factor.

**Date : 25 November 2022 (Friday)**

**Time : 2:00pm**

**Zoom Meeting : <https://hkust.zoom.us/j/97223013392> (Passcode: 673644)**

*All are Welcome!*