

# Leslie Comrie Seminar Series 2023/24

## The AI mathematician

**Wednesday 24 January 2024, 15:00-16:00**

**Speaker: Professor Yang-Hui He, London Institute of Mathematical Sciences**

### **Abstract:**

We summarize how AI can approach mathematics in three ways: theorem-proving, conjecture formulation, and language processing.

Inspired by initial experiments in geometry and string theory, we present a number of recent experiments on how various standard machine-learning algorithms can help with pattern detection across disciplines ranging from algebraic geometry to representation theory, to combinatorics, and to number theory.