

# PROGRAM

## Vietnam Polymath REU 2025 - Student, Research, and Academia

**Time:** June 30 - July 4, 2025

**Venue:** Vietnam Institute for Advanced Study in Mathematics (VIASM),  
161 Huynh Thuc Khang, Dong Da, Ha Noi.

	<b>Mon, June 30</b>	<b>Tue, July 1</b>	<b>Wed, July 2</b>	<b>Thur, July 3</b>	<b>Fri, July 4</b>
<b>08:00-08:20</b>	<i>Registration</i>				
<b>08:20-08:30</b>	<i>Opening ceremony</i>				
<b>8:30 - 12:00</b> <i>(Teabreak: 10:00-10:30)</i>	Course A: Model theory (Thomas Koberda)	Course A: Model theory (Thomas Koberda)	Course A: Model theory (Thomas Koberda)	Course B: Discrete geometry (Pham Van Thang, Steven Senger)	Course B: Discrete geometry (Pham Van Thang, Steven Senger)
<b>12:00-13:00</b>	<i>Lunch time</i>				
<b>13:00 - 16:30</b> <i>(Teabreak: 14:30-15:00)</i>	Research findings report	Research findings report	Course B: Discrete geometry (Pham Van Thang, Steven Senger)	Course A: Model theory (Thomas Koberda)	Discussion

### Course A (Instructor: Thomas Koberda)

- **Title:** Model theory through random graphs
- **Abstract:** In this minicourse, I will introduce some of the fundamental ideas of model theory, categoricity, and elementary equivalence, via the Erdos-Renyi model for random graphs. Only the basics of graph theory and probability will be assumed.

### Course B (Instructors: Thang Pham and Steven Senger)

- **Title:** Some selected topics in Discrete Geometry
- **Abstract:** In this minicourse, we aim to introduce some central topics in discrete geometry and to explore how geometric methods, discrete Fourier analysis, and algebraic techniques can be used to tackle them.