

Introductory School  
“Definability, Decidability, and Computability”

September 15 - 19, 2025

organized by  
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Shlapentokh

*Time measurement: CEST*

• Monday, September 15

08:30 - 09:00	<i>Arrival and Registration</i>
09:00 - 09:05	<i>Welcome by HIM Director (TBC)</i>
09:05 - 10:05	<b>Franziska Jahnke (1)</b>
10:05 - 10:25	<i>Coffee break</i>
10:25 - 11:25	<b>Bjorn Poonen</b> <i>Lecture 1: Diophantine sets and Hilbert's tenth problem</i>
11:25 - 11:40	<i>Break</i>
11:40 - 12:40	<b>Sylvy Anscombe</b> <i>Lecture 1: The classical Ax-Kochen/Ershov principles</i>
12:40 - 14:30	<i>Lunch break</i>
14:30 - 15:30	<b>Theodore Slaman (1)</b>
15:30 - 16:00	<i>Coffee break</i>
16:00 - 17:00	<b>Franziska Jahnke (2)</b>
Afterwards	<i>Get-Together</i>

• Tuesday, September 16

09:00 - 10:00	<b>Sylvy Anscombe</b> <i>Lecture 2: Positive residue characteristic: finite ramification and Kaplansky's hypothesis</i>
10:00 - 10:20	<i>Coffee break</i>
10:20 - 11:20	<b>Theodore Slaman (2)</b>
11:20 - 11:40	<i>Group photo and break</i>

11:40 - 12:40	<b>Bjorn Poonen</b> <i>Lecture 2: The first order theory of finitely generated rings and fields</i>
12:40 - 14:30	<i>Lunch break</i>
14:30 - 15:30	<b>Franziska Jahnke (3)</b>
15:30 - 16:00	<i>Coffee break</i>
16:00 - 17:00	<b>Sylvy Anscombe</b> <i>Lecture 3: Tame fields and existential theories in equal characteristic</i>

• **Wednesday, September 17**

09:30 - 10:30	<b>Bjorn Poonen</b> <i>Lecture 3: Hilbert's tenth problem for rings of integers I</i>
10:30 - 11:00	<i>Coffee break</i>
11:00 - 12:00	<b>Theodore Slaman (3)</b>
12:00 - 14:00	<i>Lunch</i>
14:00 -	<i>Excursions</i>

• **Thursday, September 18**

09:00 - 10:00	<b>Franziska Jahnke (4)</b>
10:00 - 10:20	<i>Coffee break</i>
10:20 - 11:20	<b>Sylvy Anscombe</b> <i>Lecture 4: Analytic, difference, and differential structures</i>
11:20 - 11:40	<i>Break</i>
11:40 - 12:40	<b>Theodore Slaman (4)</b>
12:40 - 14:30	<i>Lunch break</i>
14:30 - 15:30	<b>Bjorn Poonen</b> <i>Lecture 4: Hilbert's tenth problem for rings of integers II</i>
15:30 - 16:00	<i>Coffee break</i>
16:00 - 17:00	<b>Franziska Jahnke (5)</b>
TBA	<i>Dinner (Lamme Goedzak)</i> <i>Choose the menu one day in advance, and pay at the restaurant</i>

• **Friday, September 19**

09:00 - 10:00	<b>Theodore Slaman (5)</b>
10:00 - 10:20	<i>Coffee break</i>
10:20 - 11:20	<b>Bjorn Poonen</b> <i>Lecture 5: Failed approaches to Hilbert's tenth problem for <math>\mathbb{Q}</math></i>

11:20 - 11:40	<i>Break</i>
11:40 - 12:40	<b>Sylvy Anscombe</b> <i>Lecture 5: Towards the Taming Theorem of Jahnke and Kartas which applies the AKE-theory of tame valued fields to perfectoid fields</i>
12:40 - 14:30	<i>Lunch break</i>
14:30 -	<i>Discussions</i>