#### **Recent Applications of Model Theory**

Workshop on applications of model theory in complex geometry and differential algebra

(7-11 July 2025)



### ORGANIZING COMMITTEE

Artem Chernikov University of California, Los Angeles

> James Freitag University of Illinois Chicago

> > Kobi Peterzil University of Haifa

Chieu-Minh Tran National University of Singapore

> Jinhe Ye University of Oxford



Venue

**1.30–3.30 p.m.** IMS Executive Seminar Room Block S17, Level 3

4.00-6.00 p.m.

Dept. of Mathematics Block S17-04-05

10 Lower Kent Ridge Rd Singapore 119076

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Monday, 7 July 2025				
Time	Title	Speaker		
1320-1330	Registration			
Venue	IMS Executive Seminar Room			
1330-1430	Definable Groups in Geometric Fields with a Generic Derivation	Anand Pillay University of Notre Dame, USA		
1430-1530	Minimality of Difference-differential Equations	Wei Li Chinese Academy of Sciences, China		
1530-1600	Coffee Break			
Venue	S17-04-05			
1600-1700	Forking in Differential Fields of Positive Characteristic	Piotr Kowalski University of Wrocław, Poland		
1700-1800	Stable D-finite Functions	Shaoshi Chen Chinese Academic of Sciences, China		
Tuesday, 8 Ju	ly 2025			
Time	Title	Speaker		
1000-1200	Free Discussion			
1200-1330	Lunch Reception at IMS			
Venue	IMS Executive Seminar Room			
1330-1430	<i>Joint Colloquium Talk</i> Transseries and Hardy Fields	Lou van den Dries The University of Illinois Urbana- Champaign, USA		
Wednesday, 9	) July 2025			
Time	Title	Speaker		
1320-1330	Registration			
Venue	IMS Executive Seminar Room			

Nimish A. Shah

The Ohio State University, USA

Equidistribution of Polynomially Bounded o-minimal

Curves in Homogeneous Spaces

1330-1430

# Workshop on applications of model theory in complex geometry and differential algebra

Wednesday, 9 July 2025				
Time	Title	Speaker		
1430-1530	Semi-constant Families of Semi-abelian Varieties	Harry Schmidt University of Warwick, UK		
1530-1600	Group Photo & Coffee Break			
Venue	S17-04-05			
1600-1700	Images of Algebraic Sets under Lattice Quotients	Spencer Dembner Stanford University, USA		
1700-1800	Tameness, Complexity, and the Space of Quantum Field Theories	Mick van Vliet Utrecht University, Netherlands		
Thursday, 10 July 2025				
Time	Title	Speaker		
1320-1330	Registration			
Venue	IMS Executive Seminar Room			
1330-1430	Projective Curves and Weak Second-order Logic	Alessandro Berarducci University of Pisa, Italy		
1430-1530	Definable <i>C<sup>r</sup></i> Structures on Definable Topological Groups: d-minimal Case	Masato Fujita Japan Coast Guard Academy, Japan		
1530-1600	Coffee Break			
Venue	S17-04-05			
1600-1700	Trace Definability	Erik Walsberg <i>USA</i>		
1700-1800	Continuous Selection Problems in Tame Expansions of Real Closed Fields	Athipat Thamrongthanayalak Chulalongkorn University, Thailand		
1830	<u>Conference Dinner (by invitation only)</u> One-way transfer from IMS to Bumbu Restaurant			

## Workshop on applications of model theory in complex geometry and differential algebra

Friday, 11 July 2025			
Time	Title	Speaker	
1320-1330	Registration		
Venue	IMS Executive Seminar Room		
1330–1430	Sharply o-minimal Structures	Dmitry Novikov Weizmann institute of Science, Israel	
1430-1530	Likely Intersections in Powers of the Multiplicative Group	Francesco Gallinaro University of Pisa, Italy	
1530-1600	Coffee Break		
1600-1700	Definable Rings, Associative Algebras, and O-minimality	Analisa Conversano Massey University, New Zealand	