

Workshop 1 on “Reverse Mathematics and Higher Computability Theory”**of the Thematic Programme “Reverse Mathematics”****June 30 - July 4, 2025****organized by****Juan Aguilera (TU Vienna), Linda Brown Westrick (Penn State U), Noam Greenberg (Victoria U of Wellington), Denis Hirschfeldt (U of Chicago)****• Monday, June 30th, 2025**09:00 – 09:30 **Registration & Welcome**09:30 – 10:15 **Liang Yu (Nanjing U)***Digging Out Pointed Sets*10:15 – 10:45 **Coffee Break**10:45 – 11:30 **Sy David Friedman (U of Vienna)***Stability, Genericity and Strength*11:30 – 12:15 **Su Gao (Nankai U)***The computability of some problems in Borel combinatorics*12:15 – 14:00 **Lunch Break**14:00 – 14:45 **Liling Ko (TU Vienna)***Dichotomy for classes of countable graphs*14:45 – 15:30 **Philipp Lücke (U Hamburg)** Σ_1 – definability at higher cardinals15:30 – 16:00 **Coffee Break**16:00 – 16:45 **Raphaël Carroy (U Torino)***A well-quasi-order for continuous functions***• Tuesday, July 1st, 2025**09:30 – 10:15 **Antonio Montalbán (UC, Berkeley)***The limit of deteremiancy in second order logic*10:15 – 10:45 **Coffee break**10:45 – 11:30 **Dominique Lecomte (LPTHE, Paris)***Strong representation of Π^0_3 sets and dichotomies*11:30 – 12:15 **Robert Lubarsky (FAU, Boca Ratón)***The Reverse Mathematics of Harrington’s Principle*12:15 – 14:00 **Lunch Break**14:00 – 14:45 **Hanul Jeon (Cornell U, Ithaca)***On proof-theoretic dilator and Pohlers’ characteristic ordinals*

14:45 – 15:30 **Gian Marco Osso (U of Udine)**

Separating classes of oracular strength related to cardinal characteristics over models of Δ_1^1 comprehension

15:30 – 16:00 **Coffee Break**

16:00 – 16:45 **Martina Iannella (TU Vienna)**

On Laver algebras and their embeddings

- **Wednesday, July 2nd, 2025**

09:30 – 10:15 **Natasha Dobrinen (Notre Dame)**

Computability theoretic aspects of big Ramsey degrees

10:15 – 10:45 **Coffee Break**

10:45 – 11:30 **Daniel Turetsky (Victoria U of Wellington)**

Iterated Graph Derivatives, Antiderivatives, and Priority Arguments

11:30 – 12:15 **Thibaut Kouptchinsky (TU Vienna)**

The reverse mathematics of analytic measurability

12:15 – 14:00 **Lunch Break**

14:00 – 14:45 **Johanna Franklin (Hofstra U, Hempstead)**

Failure modes for highness for isomorphism

14:45 – 15:30 **Josiah Jacobsen-Grocott (NTU Singapore)**

A Weihrauch degree perspective on the difficulty of finding isomorphisms

15:30 – 16:00 **Coffee Break**

16:00 – 16:45 **Philipp Schlicht (U Siena)**

Computations, countable ranks and complexity of Borel codes

- **Thursday, July 3rd, 2025**

09:30 – 10:15 **Miroslav Zeleny (Charles U, Prague)**

On the Luzin-Novikov theorem

10:15 – 10:45 **Coffee Break**

10:45 – 11:30 **Jan Kruschewski (TU Vienna)**

Analysis of HOD for Admissible Structures

11:30 – 12:15 **Vassilios Gregoriades (National and Technical U of Athens)**

Classical versions of effective Borel uniformizations

19:00 **Workshop Dinner**

- **Friday, July 4th, 2025**

10:15 – 11:00 **Philip Welch (U Bristol)**

Higher Type Recursion in Transfinite Computational models

11:00 – 11:30 **Coffee Break**

11:30 – 12:15 **Joseph Miller (U of Wisconsin-Madison)**

Generic Muchnik reducibility

12:15 – 13:00 **Selwyn Ng (NTU Singapore)**

Some reducibilities in computability theory

All talks take place at ESI Boltzmann Lecture Hall!