



THE HEBREW UNIVERSITY OF JERUSALEM  
ISRAEL INSTITUTE FOR ADVANCED STUDIES

# The 19th Midrasha Mathematicae

## 8th Young Set Theory Workshop (Compactness, Incompactness and Canonical Structures)

October 25-30, 2015

All lectures will take place at the Israel Institute for Advanced Studies,  
on the Edmond J. Safra, Givat Ram Campus

**Director:**

**Peter Sarnak** (IAS Princeton)

**Co-Directors:**

**Menachem Kojman** (Ben-Gurion University of the Negev)

**Menachem Magidor** (The Hebrew University of Jerusalem)

**Assaf Rinot** (Bar-Ilan University)

**Saharon Shelah** (The Hebrew University of Jerusalem)

# Program

## Sunday, 25 October

- 08:30 - 09:30     Registration
- 09:30 - 09:45     Opening Remarks and Greetings
- 09:45 - 10:45     **Laura Fontanella** (The Hebrew University of Jerusalem)  
Reflection and Anti-reflection at the Successor of a Singular Cardinal
- 10:45 - 11:00     Coffee Break
- 11:00 - 12:00     **Diego A. Mejia** (Vienna University of Technology)  
Many different values in Cichon's diagram
- 12:00 - 13:30     **Lunch**
- 13:30 - 14:30     **Boaz Tsaban** (Bar-Ilan University)  
Applications of PCF theory and forcing theory to free topological groups
- 14:30 - 14:45     Coffee Break
- 14:45 - 15:45     **W. Hugh Woodin** (Harvard University)  
The HOD Dichotomy, weak extender models, and universality
- 15:45 - 16:00     Coffee Break
- 16:00 - 17:00     **Martin Zeman** (University of California, Irvine)  
A panoramic view of inner model theory for not so small/large cardinals
- 18:00 - 20:00     Reception

## Monday, 26 October

- 09:00 - 10:00    **Menachem Magidor** (The Hebrew University of Jerusalem)  
Compactness and Incompactness at small Cardinals
- 10:00 - 10:15    Coffee Break
- 10:15 - 11:15    **Peter Komjath** (Eötvös Loránd University (ELTE))  
The chromatic number of infinite graphs
- 11:15 - 11:30    Coffee Break
- 11:30 - 12:30    **Yizheng Zhu** (Westfälische Wilhelms Universität, Münster)  
The higher sharp
- 12:30 - 14:00    **Lunch**
- 14:00 - 15:45    Discussion Sessions
- 15:45 - 16:00    Coffee Break
- 16:00 - 17:00    **W. Hugh Woodin** (Harvard University)  
The coding obstruction
- 17:00 - 17:15    Coffee Break
- 17:15 - 18:15    **Martin Zeman** (University of California, Irvine)  
A panoramic view of inner model theory for not so small/large cardinals II

## Tuesday, 27 October

- 09:00 - 10:00    **Menachem Magidor** (The Hebrew University of Jerusalem)  
Compactness and Incompactness at small Cardinals II

- 10:00 - 10:15 Coffee Break
- 10:15 - 11:15 **Peter Komjath** (Eötvös Loránd University (ELTE))  
The chromatic number of infinite graphs II
- 11:15 - 11:30 Coffee Break
- 11:30 - 12:30 **W. Hugh Woodin** (Harvard University)  
The comparison obstruction
- 12:30 - 14:00 **Lunch**
- 14:00 - 18:00 **Excursion**

### Wednesday, 28 October

- 09:00 - 10:00 **Menachem Magidor** (The Hebrew University of Jerusalem)  
Compactness and Incompactness at small Cardinals III
- 10:00 - 10:15 Coffee Break
- 10:15 - 11:15 **Peter Komjath** (Eötvös Loránd University (ELTE))  
The chromatic number of infinite graphs III
- 11:15 - 11:30 Coffee Break
- 11:30 - 12:30 **Andrew Marks** (University of California, Los Angeles)  
Baire measurable paradoxical decompositions via matchings
- 12:30 - 14:00 **Lunch**
- 14:00 - 15:45 Discussion Sessions
- 15:45 - 16:00 Coffee Break

16:00 - 17:00     **Martin Zeman** (University of California, Irvine)  
A panoramic view of inner model theory for not so  
small/large cardinals III

**Thursday, 29 October**

09:00 - 10:00     **Menachem Magidor** (The Hebrew University of  
Jerusalem)  
Compactness and Incompactness at small  
Cardinals IV

10:00 - 10:15     Coffee Break

10:15 - 11:15     **Peter Komjath** (Eötvös Loránd University (ELTE))  
The chromatic number of infinite graphs IV

11:15 - 11:30     Coffee Break

11:30 - 12:30     **W. Hugh Woodin** (Harvard University)  
The amenability obstruction

12:30 - 14:00     **Lunch**

14:00 - 15:45     Discussion Sessions

15:45 - 16:00     Coffee Break

16:00 - 17:00     **Martin Zeman** (University of California, Irvine)  
A panoramic view of inner model theory for not so  
small/large cardinals IV

17:00 - 17:15     Coffee Break

17:15 - 18:15     **Saharon Shelah** (The Hebrew University of  
Jerusalem)  
Iterated forcings for inaccessible cardinals

## Friday, 30 October

- 09:00 - 10:00    **Diana Ojeda-Aristizabal** (University of Toronto)  
Topological partition relations for ordinals below  $w^w$
- 10:00 - 10:15    Coffee Break
- 10:15 - 11:15    **Ari Brodsky** (Bar-Ilan University)  
Reduced powers of Souslin trees
- 11:15 - 11:30    Coffee Break
- 11:30 - 12:30    **Menachem Kojman** (Ben-Gurion University of the Negev)  
The arithmetic of Density