



Schedule	Abstracts	Directions and Parking	Organizers
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## Logic in Southern California Caltech

Saturday, February 20, 2016  
2:00 - 6:00 pm  
Sloan room 151

Funded by NSF grant DMS-1044150

### Schedule:

2:00-3:00 Martino Lupini (Caltech)  
3:15-4:15 Geoff Galgon (UCI)  
4:15-5:00 Coffee Break  
5:00-6:00 Spencer Unger (UCLA)

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### Abstracts:

#### Martino Lupini

**Title:** Weak equivalence of actions and first order logic

**Abstract:** I will present a model-theoretic perspective on the notion of weak equivalence for actions on the standard probability space. I will explain how this perspective allows one to recover some known results about the space of weak equivalence classes, and at the same time establish their noncommutative analogs. This is joint work with Peter Burton.

#### Geoff Galgon

**Title:** Perfect and Scattered Subsets of  $2^{\kappa}$  and  $P_{\kappa}\lambda$ , with an Application to Almost Disjoint Refinements

**Abstract:** The topological notions of perfectness and scatteredness can be generalized in several ways to spaces like  $2^{\kappa}$ ,  $2^{\kappa}$ , and  $P_{\kappa}\lambda$ . We present one possible way of doing this, and show as an application how the consistency of a Cantor-Bendixson-like dichotomy for closed subsets of  $2^{\kappa}$  can be used to prove that in generic extensions by a broad class of forcings, there is an almost disjoint refinement of the ground model's  $\kappa$ -sized subsets of  $2^{\kappa}$ .

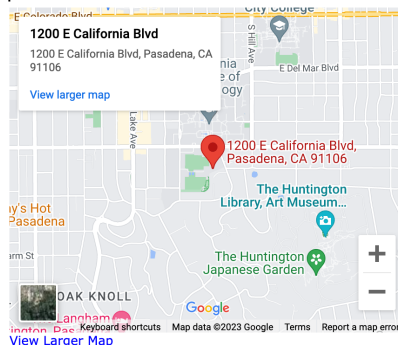
#### Spencer Unger

**Title:** Successive failures of weak square and the failure of SCH

**Abstract:** We are motivated by the question "Can one construct a  $\kappa$ -Aronszajn tree for some  $\kappa > \aleph_1$  in ZFC?" Towards a negative answer, we prove the following theorem: From large cardinals it is consistent that  $\aleph_{\omega^2}$  is strong limit and there are no special  $\kappa$ -Aronszajn trees for any regular  $\kappa$  in the interval  $[\aleph_{\omega^2}, \aleph_{\omega^2+2}]$ .

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### Directions and Parking:



Address:  
1200 E. California Blvd.  
Pasadena, CA 91125

Take a look at the [Caltech campus map](#)

There is free Saturday parking in underground structure #126. Feel free to park in any of the commuter spaces (these are marked by a red line).

Talks will be held in Sloan building #37, Room 151 on the ground floor

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### Organizers:

Alexander Kechris (Caltech). [Organizer Information](#)  
Itay Neeman (UCLA). [Organizer Information](#)  
Matthew Foreman (UCI). [Organizer Information](#)  
Martin Zeman (UCI) [Organizer Information](#)

### Local Organizers:

Alexander Kechris (Caltech) [Organizer Information](#)  
Martino Lupini (Caltech) [Organizer Information](#)

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