

# Seminar

## Infinite games and regular sets

Sommersemester 2016, Giorgio Laguzzi

1. **20.04.2016:** Laguzzi, Giorgio  
Introduction: set theory of the real numbers and descriptive set theory.
2. **27.04.2016:** Guichardaz, Fiorella  
Gale-Stewart and Banach-Mazur games, [Ka94, pg. 368-374], Corollary 27.4 included.
3. **04.05.2016:** Lieb, Damaris  
perfect set and covering game, [Ka94, pg. 374-376]. Starting right after Corollary 27.4, till end of section.
4. **11.05.2016:** Helb, Arthur  
Borel codes and Levy collapse, [Ka94, pg. Prop 10.19-10.20-10.21] and [Je02, pg. 504-507].
5. **25.05.2016:** Bräuninger, Christian  
Solovay model, [Ka94, pg.154-160], Theorem 11.10 and 11.11, Lemma 11.12, only the first part about Lebesgue measurability.
6. **01.06.2016:** Laguzzi, Giorgio  
Characterization of  $\Delta_2^1$  and  $\Sigma_2^1$ -regularity. Choose:
  - [BJ95, Theorem 9.2.1 and Theorem 9.3.1], or
  - [Ka94, Theorem 14.1, pg.178 and Theorem 14.6 pg.181].
7. **08.06.2016:** Stuber-Rousselle, Brendan  
Tree forcings. Choose:
  - Sacks and Miller forcing: [Je02, pg.244-245] and [BJ95, pg. 360-361], or
  - Laver forcing: [Je02, pg.565-568], or
  - Mathias forcing: [BJ95, 363-366].
8. **15.06.2016: Young set theory workshop –**
9. **22.06.2016:** Ammon, Thilo  
Lebesgue measurability and Baire property for filters (Part 1), [BJ95, pg.205-209]
10. **29.06.2016:** Meurin, Patrick  
Lebesgue measurability and Baire property for filters (Part 2), [BJ95, pg.210-213]

11. **06.07.2016:**  
TBD
12. **13.07.2016:**  
TBD
13. **20.05.2016:**  
TBD

## References

- [BJ95] T. Bartoszyński- H. Judah, **Set Theory- On the structure of the real line**, AK Peters (1995).
- [Je02] T. Jech, **Set Theory**, Springer, 3rd Millennium edition (2003).
- [Ka94] A. Kanamori, **The Higher Infinite**, Springer (1994).