

# Shai Shechter

## Curriculum Vitae

### General Information

- **Corresponding Address:**  
Faculty of Mathematics and Computer Science  
The Weizmann Institute of Science  
234 Herzl Street  
Rehovot, 7610001, Israel
- **Marital Status:** Married +1
- **E-mail:** shais1985@gmail.com
- **Languages:** Hebrew (native), English (fluent), German (advanced learner, B2)

### Military Service

- 2004-2007, Paratrooper Reconnaissance Unit

### Education

- **Doctorate**  
Ph.D Mathematics, Ben Gurion University of the Negev, Beer Sheva, Israel  
THESIS: *On Regularity and Approximative Regarding the Representation Zeta Functions of Groups*  
ADVISOR: Prof. Uri Onn  
SUBMITTED: October 2018    ACCEPTED: June 2019
- **Graduate**  
M.Sc Mathematics, Ben Gurion University of the Negev, Beer Sheva, Israel  
THESIS: *The Representation Zeta Function of the Special Linear Group of Certain Division Algebras over a Local Field*  
ADVISOR: Prof. Uri Onn
- **Undergraduate**  
B.Sc Mathematics, Ben Gurion University of the Negev, Beer Sheva, Israel, Graduated 2010  
B.A. Psychology and Neuroscience, Ben Gurion University of the Negev, Beer Sheva, Israel, Incomplete

## Teaching

- 2019- Present day, Teaching assistant (Generalized functions)  
Faculty of Mathematics and Computer Science, The Weizmann Institute of Science
- 2012- 2019, Teaching assistant (Discrete mathematics, Linear algebra, Real analysis),  
Department of Mathematics, BGU
- 2016, Lecturer (Pre-Calculus for high-school teachers),  
Department of Education, BGU

## Research

### Papers

#### Published or accepted for publication

- Regular characters of classical groups over compact discrete valuation rings, (2017), *J. Pure Appl. Algebra* 223 (201), 4384-4425, arXiv:1709.01685
- Enumerating traceless matrices over compact discrete valuation rings, with A. Carnevale and C. Voll (2017), *Israel J. Math.* 227 (2018), 957-986, arXiv:1709.02717
- Characters of the Norm-One Units of Local Division Algebras of Prime Degree, *Journal of Algebra* 474 (2017), 134-165, arXiv:1512.02448

### Research Talks

- July 2019- Advanced School Representations of Pro- $p$  Groups, ICMAT, Madrid  
TOPIC- *Approximating the Representation Zeta Function of Finite Groups of Lie-type*
- December 2018- Algebraic Seminar, Haifa University  
TOPIC- *Approximating the Representation Zeta Function of Finite Groups of Lie-type*
- March 2019- Algebraic Geometry and Representation Theory Seminar, The Weizmann Institute of Science  
TOPIC- *Approximating the Representation Zeta Function of Finite Groups of Lie-type*
- June 2017- Contributed talk at the *Fourth International Workshop on Zeta Functions in Algebra and Geometry*, in Bielefeld, Germany  
TOPIC- *On Regular Characters of Classical Groups*
- June 2016- Algebraic Geometry and Number Theory Seminar, Ben-Gurion University  
TOPIC- *On Regular Characters of Groups*
- November 2014- Bar-Ilan Algebra Seminar  
TOPIC- *Representation Zeta Functions of Norm One Subgroups of a Local Division Algebra*
- June 2014 - Poster at the *Biccoca Workshop on Representation Theory*, in Milan, Italy  
TOPIC- *On The Representation Zeta Function for the Group  $SL_1(D)$ , for  $D$  a Division Algebra Over a Local Field*

- September 2013 - Student lecture at the workshop *Zeta Functions of Groups and Related Subjects*, in Padova, Italy

TOPIC - *On the Representation Zeta Function of the Special Linear Group of Division Algebras over Local Fields*

### **Awards and Scholarships**

- 2018 - Feinberg Graduate School Postdoctoral Fellowship (WIS)
- 2018 - Hillel Gauchman Scholarship for excellence in mathematical research
- 2014 - NRW Scholarship Program for students from Israel
- 2014 - Negev Scholarship - Zin Fellowship
- 2010 - Summer Scholarship for outstanding applicants
- 2006 - Zlotowski Scholarship for B.Sc students