HARSHITHA C

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EDUCATION

Research Scholar	August 2019 – Present
IISER Tirupati	*CGPA – 9.8/10*
M.Sc. in Mathematics	2016 – 2018
IIT Gandhinagar	*CPI – 9.49/10*
B.Sc. in Mathematics, Physics, Chemistry	2013 – 2016
Mount Carmel College (Autonomous), Bengaluru	*85.47%*

EXPERIENCE

Orbit closures in representation spaces of type D quivers   May 2018 - July 2018
University of Saskatchewan, Canada

▷ Under the guidance of Prof. Jenna Rajchgot

▷ The goal of this project was to study the orbit closures in representation spaces of type D quivers under the conjugation action of product of suitable general linear groups. Matrices whose rank conditions characterize the orbit of a type D (and hence type A) quiver representation are known. It is known that for type A quivers, the minors of the generic matrices form a Gröebner basis for the quiver ideal, implying that these ideals are radical.

▷ We examined if a similar situation occurs in the case of type D quivers under a suitable monomial ordering. We also wanted to determine explicitly the rank conditions which give quiver ideals that are prime.

Project assistant   September 2018-December 2018
IISER Tirupati

Teaching Assistant   January 2019-May 2019
IISER Tirupati

▷ Assisted the course instructors in conducting tutorials and grading for the courses MTH221(Basic Algebraic Structures) and MTH121(Basic Analysis)

ACADEMIC ACHIEVEMENTS

⋆ Institute Silver Medal for securing second highest CPI in MSc mathematics at IIT Gandhinagar.

⋆ NBHM Ph.D. fellow

⋆ Secured CSIR-JRF rank 10 in CSIR-UGC NET conducted in December 2017 and UGC-JRF rank 49 in CSIR-UGC NET conducted in June 2017.

⋆ Cleared GATE Mathematics 2018 in mathematics with AIR 107.

SUMMER PROGRAMS ATTENDED

⋆ SURI internship (May-July 2018) at University of Saskatchewan, Canada; Working on the project "Orbit closures in representation spaces of Type-D quivers" under the supervision of Prof. Jenna Rajchgot.

⋆ STP (Summer Training Programme in mathematics) (May 2017) conducted at Ramanujan Institute of Advanced Study in Mathematics (University of Madras)

⋆ MTTS (Mathematics Training and Talent search- Level 1) (May 2016) conducted at IIT Madras, Chennai.

⋆ MTTS (Mathematics Training and Talent Search- Level O) (May 2015) conducted at SSN college of engineering, Chennai.