

Department of Mathematics, BGU

BGU Probability and Ergodic Theory (PET) seminar

On Thursday, June 16, 2022

At 11:10 – 12:00

In room 106, building 28

ANTON HASE (BEN-GURION UNIVERSITY)

will talk about

(Non-)Integrability of quaternion-Kähler symmetric spaces

ABSTRACT: It is a famous result of Harish-Chandra that every non-compact Hermitian symmetric space can be realized as a bounded domain in a complex vector spaces. If we replace the complex numbers by the division algebra of quaternions in the definition of Hermitian symmetric spaces, we obtain the class of quaternion-Kähler symmetric spaces. While these spaces emerge in an analogous way, we show that there is no quaternionic analogue of Harish-Chandra's embedding theorem: A quaternion-Kähler symmetric space is integrable if and only if it is a quaternionic vector space, quaternionic hyperbolic space or quaternionic projective space. In the talk I will explain some of the background and some of the tools used in the proof.

Please Note the Unusual Place!