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### गणित विभाग

# DEPARTMENT OF MATHEMATICS

# दिल्लीविश्वविद्यालय, दिल्ली-10007

### **UNIVERSITY OF DELHI, DELHI – 110007**

## Cordially invites you to an Invited talk as per following details

Day and Date : Wednesday, June 12, 2024

Time : 12:00 (noon)

Venue : Research Scholar Room (Ground Floor)

**Department of Mathematics** 

University of Delhi

Title : Investigation of Gaps problems in Diophantine

**Approximation** 

Speaker: Dr. Akshat Das

Affiliation : Department of Mathematical Sciences

United States Military Academy

New York, U.S.A.

Abstract : The classical three gap theorem for rotations on the

circle was first proved in the late 1950's and since then it has been proved numerous times using new techniques and generalized in many ways. After giving an insight into the classical result and its related works, an introduction to the field of p-adic numbers and the setting of an adelic torus and a natural generalization of the three gap theorem for rotations on adelic tori will be given. After explaining the reformulation of the problem as a problem about bounding a certain function on a space of lattices, an exhaustive list of examples will be provided to prove

that the bound obtained is best possible

HEAD Department of Mathematics