# IMSAC Consortium
# Andras Szenes
## Intersection Cohomology of the Moduli Spaces of Stable Bundle I & II

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5PM

Ungar, Room 528B & 402

**Andras Szenes is a world leader of topology, numerical geometry and mathematical physics. He is known for his work on Verlinde conjecture, Hilbert schemes and singularity theory, theory of quantization. Andras has been a Alfred Sloan Fellow and Bolyai Fellow. He served on many international committees including ERC committees.**

Intersection cohomology is a topological notion adapted to the description of singular topological spaces, and the Decomposition Theorem for maps is a key tool in the subject. The study of the intersection cohomology of the moduli spaces of semistable bundles on Riemann surfaces began in the 80's with the works of Frances Kirwan. Motivated by the work of Mozgovoy and Reineke, in joint work with Camilla Felisetti and Olga Trapeznikova, we give a complete description of these structures via a detailed analysis of the Decomposition Theorem applied to a certain map. We also give a new formula for the intersection Betti numbers of these moduli spaces, which has a clear geometric meaning. In these talk, I will give an introduction to the subject, and describe our results.

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