



# ODTU-Bilkent Algebraic Geometry

## The cohomology of a general stable sheaf on a K3 surface

By

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**Abstract:** In this talk, I will describe joint work with Howard Nuer and Kota Yoshioka on computing the cohomology of the general stable sheaf in a moduli space of semistable sheaves on a K3 surface of Picard rank 1. We find sharp bounds on the Mukai vector that guarantees that the cohomology can be determined from the Euler characteristic and classify all the Mukai vectors up to rank 20 where the generic sheaf does not exhibit the expected behavior. We make critical use of Bridgeland stability conditions in our computation.

**Date:** 1 October 2021, Friday

**Time:** 16:00 (GMT+3)

**Place:** Zoom

To request the event link, please send a message to [sertoz@bilkent.edu.tr](mailto:sertoz@bilkent.edu.tr)