



# ODTU-Bilkent Algebraic Geometry

## Non-degeneracy of Enriques surfaces

By

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**Abstract:** Enriques' original construction of Enriques surfaces involves a 10-dimensional family of sextic surfaces in the projective space which are non-normal along the edges of a tetrahedron. The question whether all Enriques surfaces arise through Enriques' construction has remained open for more than a century.

In two joint works with G. Martin (Bonn) and G. Mezzedimi (Hannover), we have now settled this question in all characteristics by studying particular configurations of genus one fibrations, and two invariants called maximal and minimal non-degeneracy. The proof involves so-called 'triangle graphs' and the distinction between special and non-special 3-sequences of half-fibers.

In this talk, I will present the problem and explain its solution, illustrating further possible developments and applications.

**Date:** 25 November 2022, Friday

**Time:** 15:40 (GMT+3)

**Place:** Zoom

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