## ARITHMETIC AND GEOMETRY OF ALGEBRAIC SURFACES (MS - ID 45)

## The Mumford–Tate conjecture for surfaces — state of the art

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The Mumford–Tate conjecture (MTC) provides a bridge between the Hodge structure on the singular cohomology of an algebraic variety (over the complex numbers) and the Galois representation on the étale cohomology of a model of that same variety over a number field. Recently, there have been several new results on MTC for algebraic surfaces. In this talk I will give an overview of what is currently known, and explain some of the techniques used in the new results.