On the Chow motives of an algebraic surface and some of their properties

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Abstract

In the first part of the lecture I discuss the existence of a so-called Chow-Kuenneth decomposition of an algebraic surface into Chow motives. In the second part (which is joint work with Kahn and Pedrini) I discuss what can be said about the morphisms between these motives. This part is closely related to the (still wide open !) Bloch conjecture for algebraic surfaces.