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# Oberseminar Institut für Algebraische Geometrie

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# Unimodal singularities and boundary divisors in the KSBA moduli of a class of Horikawa surfaces.

Smooth minimal surfaces of general type with  $K^2 = 1$ ,  $pg = 2$ , and  $q = 0$  constitute a fundamental example in the geography of algebraic surfaces, and the 28-dimensional moduli space  $M$  of their canonical models admits a modular compactification  $\bar{M}$  via the minimal model program. We describe eight new irreducible boundary divisors in such compactification parametrizing reducible stable surfaces. Additionally, we study the relation with the GIT compactification of  $M$  and the Hodge theory of the degenerate surfaces that the eight divisors parametrize.

Donnerstag, 17.11.2022

16:30-17:30, Raum B302

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Alle Interessierten sind herzlich eingeladen.