

# The moduli space of rational elliptic surfaces

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We generalize the notion of resultant of two polynomials and stratify the space of pairs of homogeneous polynomials in two complex variables in terms of the multiple and common roots they have. As an application, we stratify the boundary of the moduli space of rational elliptic surfaces in terms of the configurations of singular fibers the surfaces admit. We explain the limitation of our machinery and how a computational method could solve it.