

Ulrich bundles

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Resumen

More than ten years ago, David Eisenbud and Frank-Olaf Schreyer posed the question whether any smooth projective variety is the support of an Ulrich bundle. In spite the theory of Ulrich bundles has become a very active area of research, this problem is still open. During the talk we will review some contributions to it and we will see how Ulrich bundles appear in multiple scenarios as commutative algebra, algebraic geometry or physics. We will see that the construction of Ulrich bundles has received inputs from a priori unrelated areas and that, at the same time, has motivated other problems and conjectures in these other areas.

Referencias

- [1] L. Costa, R.M. Miró-Roig, J. Pons-Llopis, *Ulrich bundles: from commutative algebra to algebraic geometry*, Studies in Mathematics **77**, De Gruyter (2021).
- [2] David Eisenbud, Frank-Olaf Schreyer and Jerzy Weyman, *.Resultants and Chow forms via exterior syzygies*, J. Amer. Math. Soc. 16 (2003), 537-579 .