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The Aluffi Algebra of Projective Points

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Let $J \subset I$ be ideals in the commutative ring R . The Aluffi algebra of I/J on R/J is an intermediate graded algebra between the symmetric algebra and Rees Algebra of the ideal I/J over R/J . A pair of ideals has been dubbed an Aluffi torsion-free pair if the surjective map of the Aluffi algebra of I/J onto the Rees algebra of I/J is injective. In this talk we look at cases that J is the defining ideal of finite set of projective points in general linear position and I stand for the Jacobian ideal of J . This talk is based on joint work with A. Simis and R. Zaare-Nahandi.