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Stanley-Reisner degenerations for dual quotient bundles on G(2,n)

Let $\mathcal{Q}^*$ denote the dual of the quotient bundle on the Grassmannian $G(2,n)$. I will discuss how the ideal of $\mathcal{Q}^*$ in its natural embedding has initial ideal equal to the Stanley-Reisner ideal of a certain unobstructed simplicial complex. This can be viewed as a generalization of Sturmfels' classical result relating the Plücker ideal of $G(2,n)$ to the n-associahedron. As corollaries, we obtain that the coordinate ring of $\mathcal{Q}^*$ is Cohen-Macaulay and, for $n > 5$, has no infinitesimal deformations. This is joint work with Charles Turo.