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Real Algebraic Overtwisted Contact Structures on 3-Spheres

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A real algebraic link in the 3-sphere is defined as the zero locus in the 3-sphere of a real algebraic function from $\mathbb{R}^4 \to \mathbb{R}^2$ with an isolated singularity at the origin. A real algebraic open book decomposition on the 3-sphere is by definition the Milnor fibration of such a real algebraic function. In this talk, I will present our recent result which proves that every overtwisted contact structure on the 3-sphere with positive three-dimensional invariant d_3 are real algebraic with the pages of the associated open books being planar.

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