

**Tercer Congreso Latino-Americano de Matemáticos**  
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**COMPLEX SINGULARITIES AND CONTACT TOPOLOGY**

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ABSTRACT. To each complex isolated singularity (that is, a germ of irreducible complex analytic space with isolated singularity) is associated its *contact boundary*, an oriented contact manifold well-defined up to isotopy. To each one-parameter deformation of the singularity with smooth generic fiber (*a smoothing*) is associated a well-defined representative of the generic fiber - the *Milnor fiber* of the smoothing - a smooth, compact, oriented manifold whose boundary is diffeomorphic to the contact boundary. Moreover, the Milnor fiber may be endowed with a Stein structure which makes it a *Stein filling* of the contact boundary. Due to the existence of a *versal deformation* of the singularity, there is only a finite number of Milnor fibers, up to orientation-preserving diffeomorphisms. A natural problem is then to characterize them among the Stein fillings of the contact boundary and to describe as explicitly as possible their diffeomorphism type. I will describe the state of the art about this problem.

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