

On fillings of contact links of isolated quotient singularities

Zehngyi ZHOU¹

¹ AMSS – China

I will discuss fillings of contact links of isolated quotient singularities and show that when the singularity is terminal, the contact link often does not admit an exact filling, which provides tons of examples of contact manifolds that are strongly fillable, but not exactly fillable. In particular, I will explain the odd dimensional real projective space with the standard contact structure is not exactly fillable if and only if the dimension is larger than 3, which settles a conjecture of Eliashberg. The key ingredients are symplectic cohomology for orbifolds and the secondary coproduct structure on it.