Overtwisted in higher dimensions

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Abstract

The first important structural distinction discovered for 3-dimensional contact manifolds was the existence or the absence of a so-called overtwisted disc. This allows one to divide such spaces into two classes with quite different properties. The overtwisted contact manifolds can for example be classified easily, while the others, the "tight" contact manifolds, are much more difficult to understand, but the latter can in contrast be often realized as boundaries of symplectic manifolds.

In higher dimensions no final conclusion has been made of how the best generalization of overtwistedness should look like. In my talk, I will present a few possible versions, and explain the pros and cons of each one.