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Weakly computable arcs

The title refers to the following situation: Suppose S is weakly computable set in \mathbb{R}^n such that $\mathbb{R}^n \setminus S$ has finitely many components. Under what conditions S becomes computable set? The following terminology is used. One says that S is *weakly computable* if there exists a computable function $f: \mathbb{R}^n \rightarrow \mathbb{R}$ such that $S = f^{-1}(\{0\})$ and *computable* if S is closed in \mathbb{R}^n and the function $d_S: \mathbb{R}^n \rightarrow \mathbb{R}$, $d_S(x) = d(x, S)$ is computable.

The talk will present results obtained on this subject.