CR-continuation of arc-analytic maps.

Given a set $E$ in $\mathbb{C}^n$ and a point $p \in E$, there is a unique smallest complex-analytic germ $X_p$ containing $E_p$, called the holomorphic closure of $E_p$. We study the holomorphic closure of semialgebraic arc-symmetric sets. Our main application concerns CR-continuation of semialgebraic arc-analytic mappings: A mapping $f : M \to \mathbb{C}^n$ on a connected real-analytic CR manifold which is semialgebraic arc-analytic and CR on a non-empty open subset of $M$ is CR on the whole $M$. (Received January 18, 2015)