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The Closure of a Linear Space in $(\mathbb{P}^1)^n$.

If $L \subset \mathbb{A}^n$ is a linear space then we can take its closure in $(\mathbb{P}^1)^n$ once we fix coordinates. In this talk I'll present joint work with Federico Ardila concerning the defining ideal I of the closure. It turns out the combinatorics of this ideal are completely determined by a matroid associated to L . We compute I explicitly as well as its degree, universal Gröbner basis, and initial ideals - all with a few ideas from matroid theory. (Received September 02, 2013)