1116-55-1714 Christin Bibby* (cbibby2@uwo.ca) and Justin Hilburn. Quadratic-linear duality and rational homotopy theory of chordal arrangements.

To any graph and smooth algebraic curve C one may associate a "hypercurve" arrangement and one can study the rational homotopy theory of the complement X. In the rational case $(C = \mathbb{C})$, there is considerable literature on the rational homotopy theory of X, and the trigonometric case $(C = \mathbb{C}^{\times})$ is similar in flavor. The case of when C is a smooth projective curve of positive genus is more complicated due to the lack of formality of the complement. When the graph is chordal, we use quadratic-linear duality to compute the Malcev Lie algebra and the minimal model of X, and we prove that X is rationally $K(\pi, 1)$. (Received September 21, 2015)