Abstract Submitted for the NWS16 Meeting of The American Physical Society

The Effects of Magnetic Fields in Star Forming Regions MEHRNOOSH TAHANI, RENE PLUME, JO-ANNE BROWN, University of Calgary — The detailed mechanisms of the star formation process continue to elude us. The role of magnetic fields in star formation continues to be part of this mystery, though recent studies suggest their role is likely very important. Of particular interest are filamentary molecular clouds, known as nurseries for star formation. Within these structures, magnetic fields are observed to be on the order of tens of micro-Gauss, which are a factor of ten larger than typical interstellar magnetic fields. For my PhD work, I am investigating the effects of magnetic fields on the evolution of these filamentary structures. In my talk, I will present an overview of what we think we know about the star formation process, what we are learning, and where I hope to contribute in understanding of magnetism within these filamentary structures.

> Mehrnoosh Tahani Univ of Calgary

Date submitted: 12 Apr 2016

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