To whom it may concern:

We would like to propose the work described in “Setting limits on supersymmetry using simplified models” for publication in your journal. The experiments at the Large Hadron Collider have set limits on a number of so-called simplified models. These models were designed with the hope that they could be used to set limits on concrete models like minimal supergravity, gauge-mediated supergravity, and universal extra dimensions. This paper provides a series of protocols for constructing such limits on “real” models from the available simplified model exclusion results. We believe these protocols will be useful for theorists and phenomenologists wishing to set limits on models not considered by the LHC experiments. They should also be considered by the experiments themselves, since they require certain pieces of information that are not available for all the published search results. Indeed, since the posting of the original version of the paper on the arXiv, we have received a number of notes from interested readers asking for further instruction and guidance on using these methods.

A significantly different version of this paper was submitted to the journal Phys. Rev. D for review. However, during the review process we were contacted by one of the editors of JOVE, and we decided your journal would be a more appropriate home for the work.

The two authors of the paper essentially split the work between them. Both contributed to the construction of the method, the results, and the composition of the paper.

We hope that you will find this manuscript suitable for publication. Please do not hesitate to contact either of us if you would like to discuss the work or document.

Best Wishes,

Zachary Marshall

CERN Research Fellow

2 October 2012