Introduction

This Symposium functioned as a retrospective and review of the progress that we've made, and to set the stage for future developments in this field.

Overview of Presentations and Discussion

While many key questions about the nature of galactic winds have been answered by this Symposium series, there are still open questions with which the Symposium participants are actively engaged. For example, the following issues were actively discussed during this Symposium:

- We have collectively identified many physical processes (supernovae explosions, cosmic rays, active galactic nuclei, etc.) which can plausibly drive galactic winds. Which, if any, of these dominates the process of launching winds? Do different mechanisms dominate at different epochs in the history of the Universe, or on
different scales? Significant effort is expected to be spent on addressing these questions - both observationally and theoretically - in the near future.

- The Symposium series has established a viable picture for the CGM, with winds carrying mass and heavy elements out of galaxies, and cold clouds forming \textit{in situ} as a result of cooling. It remains open what this picture implies for the structure and evolution of the CGM across larger scales (100’s of kiloparsecs) and longer durations (gigayears). As observations probe on these length and timescales models and simulations are needed to address this question, and allow more detailed testing of this picture of the CGM.

- Multi-scale simulation and modeling has been clearly demonstrated to be necessary to fully address the question of how galactic winds work. While good progress has been made on carrying simulations across a wide range of scales, there remain many technical and methodological challenges to understanding how best to incorporate the results of small-scale simulations and models as sub-grid models in the next larger scale of a nested set of simulations. A range of approaches are currently being tried, ranging from formal separation of fast and slow variables, through to empirical approaches to match sub-grid model behavior to the results of smaller scale simulations.

\section*{New Developments and Collaborations}

A number of new collaborations have already begun as a result of this symposium. One specific example includes several participants (Benson, Katz, Kollmeier, Thompson, Weinberg) and is aimed at multi-scale modeling of wind physics, from understanding plasma effects on parsec scales, through to the interaction of outflows with cosmological inflows on scales of megaparsecs. The success of this and other collaborations will depend largely on their ability to secure funding.

\section*{Looking to the Future}

The momentum generated during this symposium series was quite exceptional. The participants expressed genuine dismay that the meeting series was over and a desire to continue them -- even if under more economical arrangements. The participants were
eager to identify ways to specifically continue the collaborations born from the Series as they were recognized as far more productive and impactful than similar parallel efforts.

**Recommendations**

Given the momentum generated by the meeting and the substantial desire for the participants to continue, we recommend that the Simons Foundation finds ways to continue support the activities and initiatives sparked by its original investment, perhaps in synergy with other areas of investment such as the Center for Computational Astrophysics. This series is an accomplishment for the Simons Foundation and one that should not readily be dissipated.

We would like to take this opportunity to formally thank the Simons Foundation for their support of this program. We realize that this was the first Astrophysics Symposium that the Foundation funded and we are truly grateful for the generous support and confident that the funds were well utilized for the benefit of a far-reaching sector of astrophysics.