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September 20, 2012

Dear Liz,

I am writing in support of your tenure dossier at the University of Pittsburgh. As you know, my research focuses on using datasets from large astronomical survey projects to study galaxies and the Universe. These projects have greatly increased our understanding of the contents of our Universe and the origin of galaxies such as the Milky Way we live in, but their very scope makes the resulting datasets difficult to visualize and understand; your research has helped bring new tools to bear for these problems.

A few years ago, a physics and astronomy graduate student, Brian Cherinka, took a course you taught focused on data visualization; in that course, students from a variety of backgrounds work together to produce new visualization tools. This work was so successful it led to a followup collaboration between a few members of our department of Physics and Astronomy (Michael Wood-Vasey, Arthur Kosowsky, and myself) with members of the CS department (Alex Labrinidis, Panos Chrysanthis, and yourself), which turned into an NSF Cyber-Enabled Discovery and Innovation grant which got funded at the level of \$1.6 million (PI: Alex Labrinidis). **If it were not for this course, I doubt this would have ever happened.**

That grant has funded the development of AstroShelf, a new tool for visualizing and annotating large astronomical datasets. A prototype has now been demonstrated to a number of groups of astronomers, and it is eliciting considerable interest. Particularly exciting is the ability to visualize simulated data from the planned Large Synoptic Survey Telescope, the astronomical community's top-priority project for the next decade; there is a huge first-mover advantage in having AstroShelf already working with the data formats that will be used for LSST, which should cause it to have a very high impact on LSST science (something I am particularly interested in as Analysis Coordinator for the LSST Dark Energy Science Collaboration).

In short, your work has helped foster a new collaboration which already is yielding promising results, and I look forward to continuing to work together in the future.

Sincerely,

A handwritten signature in black ink that reads "Jeffrey Newman".

Jeffrey Newman
Associate Professor of Physics and Astronomy