**Cover Letter for Evan Kaufman**

I am currently a PhD student studying robotics and control in the department of Mechanical and Aerospace Engineering at The George Washington University. I am excited by recent results in accurate and efficient 3D mapping and exploration of mobile robots. My recent submission on this topic, titled “Autonomous Quadrotor 3D Mapping and Exploration Using Exact Occupancy Probabilities,” was recently accepted at The Second IEEE International Conference on Robotic Computing (IRC 2018). The conference scope is excellent for this paper, which deals with several computational challenges with robots estimating 3D space in real time, and exploring the space safely.

I have dedicated a great deal of effort into developing these methods, and my accepted paper demonstrates these with simulations and experiments. These results are attained using original ROS programs that use novel techniques for generating accurate probabilistic maps and efficient exploration strategies. Providing travel support would give me the opportunity to present this research to a larger community and learn from other colleagues. In particular, I am curious about how these latest results can be applied to the full SLAM problem.

In short, it would be an honor to receive a travel award from Robotics for IRC 2018. I am proud of the research for this paper, and I want to connect with a broader community to spread my results and learn from others for future research goals.