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Macelwane Medal Committee
c/o American Geophysical Union
2000 Florida Avenue, NW
Washington, DC 20009

Subject: Endorsement of Robyn M. Millan for the AGU Macelwane Medal

Dear Committee Members:

I am writing to strongly support the nomination of Robyn Millan to be a Macelwane Medal winner. In the more than twenty-five years that I have been involved in space physics research, I cannot think of a young researcher who has been more deserving of this award. Robyn has a very unusual combination of talents and accomplishments in someone at such an early career stage. She has already produced key new discoveries, she has developed new experimental instrumentation, she has successfully competed to be the PI on a major new NASA mission and she has already proven to be both an excellent teacher and mentor. She, therefore, embodies the idea of a Macelwane award winner: ‘an outstanding young scientist who has made significant contributions to geosciences.’

Robyn’s early career accomplishments indicate that she will have a major impact of the field of space physics, both for her science discoveries and for the students she trains. There are only a handful of institutions that are still providing the opportunity for students to be involved in space physics hardware projects. Robyn has already developed several different balloon and ground-based experimental programs in which students are involved. Students who have this training are critically needed in the field and I anticipate that her students will be much in demand. Her mentoring of young women is also vital in a field where women are still very much underrepresented.

Although I have had the opportunity to hear Robyn’s excellent talks at conferences, it is only recently, through my involvement with the Radiation Belt Storm Probes mission, that I have had the opportunity to become familiar with her excellent review article on radiation belt electron loss mechanisms. This paper is a model for such reviews, very clearly written. Her own research has provided crucial experimental tests for theoretical models for loss mechanisms.

I do not think it is possible to overstate Robyn’s extraordinary accomplishment in developing the BARREL project and successfully guiding it through both the proposal

and the Phase A selection process. The competition for these 'Missions-of-Opportunity' is intense; many proposals with excellent science are not selected. Significantly, NASA is now extremely careful about the experience and capabilities of scientists who may be Principal Investigators on such major projects. That Robyn and her mission were selected indicates both the importance of the science she proposes to address and the confidence that NASA and Robyn's peers have in both her research and managerial skills.

In summary, I endorse without reservation the nomination of Robyn Millan to be a Macelwane Award winner. To be able to build up such a successful experimental program, while simultaneously supervising graduate students, mentoring a large number of undergraduate students and developing new approaches to teaching large introductory classes, is extraordinary. Her accomplishments place her head and shoulders above her contemporaries. She is truly deserving of the honor of a Macelwane Medal.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Cynthia Cattell', written in a cursive style.

Cynthia Cattell
Professor, School of Physics and Astronomy
Fellow, AGU