



Preface and Acknowledgements

We as a species are coming of age in our Solar System. With due respect to Carl Sagan, I'm not sure I can agree that we're ready to come of age in the Milky Way, but the Solar System — that's another story. We are in a great age of exploration, in which whole planets and systems are being revealed for the first time; spacecraft are discovering moons not every ten years, but by the dozen every year; and our robotic avatars roll across worlds that just a few years ago were only blurry disks in the most powerful telescopes.

Just this year alone, we have seen the second largest asteroid in the asteroid belt go from a few pixels in a Hubble Space Telescope image to a geologic world in its own right, thanks to the Dawn spacecraft. Cassini continues its historic mission to Saturn and its many moons, revealing shepherd moons, methane atmospheres, and ice volcanoes on worlds where the Sun shines barely brighter than the background stars. And at the end of the year, NASA plans to launch the largest autonomous roving vehicle in history to Mars, where its primary mission is measured, not in days, but in years. What intensely exciting times we live in!

This issue of our Conference Proceedings represents the “coming of age” of our Wisconsin Space Conference as well – we are now 21! I'm not sure if our insurance rates will go down or not, but we've certainly grown by leaps and bounds in the past 21 years. We've gone from perhaps a one day conference with mostly plenary sessions, to two packed days with several session “streams,” a student poster competition, two guest speakers, a devoted student satellite session and more participants than we ever could have imagined 21 years ago when we started. That's a pretty impressive success, and there is plenty of “thanks” to spread around for it.

For these proceedings, we in the Wisconsin Space Grant Consortium office especially want to thank our host, the University of Wisconsin—LaCrosse, starting with Conference lead Dr. Eric Barnes and his staff of helpful volunteers. We always find hospitality and excellent management at UW-LaCrosse and we are grateful to Eric, to Associate Director Dr. Gubbi Sudhakaran, and to everyone who made our conference run so smoothly. Thanks must go to our session moderators and our poster judges for their conscientious work and their strong support for our students. Our keynote speakers are also to be thanked for adding so much to our conference: Dr. Jonathan P. Gardner, Chief of the Observational Cosmology Lab, NASA's Goddard Space Flight Center and Deputy Senior Project Scientist for the James Webb Space Telescope and Dr. Robert D. Gehrz, Professor of Physics and Astronomy, and Department of Astronomy Chair, University of Minnesota-Twin Cities. And ultimately, I especially appreciate all the scientists, engineers, students, educators and others, who contributed papers to this volume.

Forward!

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