



Planetary Ring Systems

- Publisher: Cambridge University Press
Editors: Matthew Tiscareno and Carl Murray
- Definitive scholarly book, aiming to succeed the classic book edited by Greenberg and Brahic (1984)
- Scope includes all rings systems, not just Saturn
 - Most chapters to focus on ring types or characteristics in a way that cuts across the known ring-bearing planet systems
- Time frame
 - Finalize chapter titles and authors in Fall 2014
 - Chapter outlines due January 2015
 - Rough drafts due July 2015
 - Aim for final drafts by end of 2015, publish book in 2016
 - Tentative plan: 2nd edition ~2020
- 650 pp, B/W figures in the text w/color plates in the back
- We will have a strong multi-media component

Planetary Ring Systems

Part I: Introductory Material

1. Learning about Planetary Rings (Esposito)
2. Planetary Ring Dynamics: An Introduction (Hedman)

Part II: Ring Systems by Location

3. The Rings of Saturn (Cuzzi)
4. The Rings of Uranus (Nicholson)
5. The Rings of Neptune (de Pater)
6. The Rings of Jupiter (Hamilton)
7. Ring Systems Beyond the Giant Planets (Sicardy)

Part III: Ring Systems by Type and Topic

8. Dynamical Theories of Perturbed Dense Rings (Stewart)
9. Dynamical Phenomena in Broad Dense Rings (Schmidt)
10. Embedded Moonlets in Dense Rings (Spahn)
11. Meteoroid Bombardment and Ballistic Transport in Planetary Ring Systems (Estrada)

12. Narrow Rings and Sharp Edges (Nicholson)
13. Dusty Rings (Hedman)
14. The F Ring (Murray)
15. Electromagnetic, Plasma, and Atmospheric Interactions with Rings (Cooper)
16. Thermal Properties of Planetary Rings (L. Spilker)
17. Computer Simulations of Planetary Rings (Salo)
18. Laboratory Studies of Planetary Rings (Colwell)
19. The Age and Origins of Planetary Ring Systems (Charnoz)

Part IV: Concluding Material

20. Future Missions to Planetary Ring Systems (T. Spilker)
21. Planetary Rings and Other Disks (Rein)
22. The Future of Planetary Rings Studies (Tiscareno/Murray)