Planets to Cosmology: Essential Science in the Final Years of the Hubble Space Telescope

Proceedings of the Space Telescope Science Institute Symposium, held in Baltimore, Maryland, May 3–6, 2004

Edited by
MARIO LIVIO
Space Telescope Science Institute, Baltimore, MD 21218, USA

STEFANO CASERTANO
Space Telescope Science Institute, Baltimore, MD 21218, USA

Published for the Space Telescope Science Institute

Operated for NASA by AURA
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants</td>
<td>vii</td>
</tr>
<tr>
<td>Preface</td>
<td>xi</td>
</tr>
<tr>
<td>Hubble's view of transiting planets</td>
<td>1</td>
</tr>
<tr>
<td>D. Charbonneau</td>
<td></td>
</tr>
<tr>
<td>Unsolved problems in star formation</td>
<td>13</td>
</tr>
<tr>
<td>C. J. Clarke</td>
<td></td>
</tr>
<tr>
<td>Star formation in clusters</td>
<td>35</td>
</tr>
<tr>
<td>S. S. Larsen</td>
<td></td>
</tr>
<tr>
<td>HST abundance studies of low metallicity stars</td>
<td>57</td>
</tr>
<tr>
<td>Physical conditions and feedback: HST studies of intense star-forming environments</td>
<td>63</td>
</tr>
<tr>
<td>J. S. Gallagher, L. J. Smith, and R. W. O'Connell</td>
<td></td>
</tr>
<tr>
<td>Quasar hosts: Growing up with monstrous middles</td>
<td>73</td>
</tr>
<tr>
<td>K. K. McLeod</td>
<td></td>
</tr>
<tr>
<td>Reverberation mapping of active galactic nuclei</td>
<td>89</td>
</tr>
<tr>
<td>B. M. Peterson and K. Horne</td>
<td></td>
</tr>
<tr>
<td>Feedback at high redshift</td>
<td>99</td>
</tr>
<tr>
<td>A. E. Shapley</td>
<td></td>
</tr>
<tr>
<td>The baryon content of the local intergalactic medium</td>
<td>111</td>
</tr>
<tr>
<td>J. T. Stocke, J. M. Shull, and S. V. Penton</td>
<td></td>
</tr>
<tr>
<td>Hot baryons in supercluster filaments</td>
<td>130</td>
</tr>
<tr>
<td>E. D. Miller, R. A. Dupke, and J. N. Bregman</td>
<td></td>
</tr>
<tr>
<td>Galaxy assembly</td>
<td>137</td>
</tr>
<tr>
<td>E. F. Bell</td>
<td></td>
</tr>
<tr>
<td>Probing the reionization history of the Universe</td>
<td>157</td>
</tr>
<tr>
<td>Z. Haim</td>
<td></td>
</tr>
<tr>
<td>Studying distant infrared-luminous galaxies with Spitzer and Hubble</td>
<td>174</td>
</tr>
<tr>
<td>C. Papovich, E. Egami, E. Le Floc'h, P. Pérez-González, G. Rieke,</td>
<td></td>
</tr>
<tr>
<td>J. Rigby, H. Dole, and M. Rieke</td>
<td></td>
</tr>
<tr>
<td>Galaxies at $z \approx 6-i'$-drop selection and the GLARE Project</td>
<td>185</td>
</tr>
<tr>
<td>The Hubble Ultra Deep Field with NICMOS</td>
<td>195</td>
</tr>
<tr>
<td>R. I. Thompson, R. J. Bouwens, and G. Illingworth</td>
<td></td>
</tr>
</tbody>
</table>