

Contents

Foreword	ix
The International “Dawson” Symposium on the Physics of Plasma	
Session I: Magnetic Fusion	
1 The Gift of Prophecy <i>B. Coppi</i>	1
2 Non-Maxwellian Fusion Plasmas and Other Curiosities <i>H.P. Furth</i>	5
Session II: Basic Plasma Physics (I)	
3 AC Helicity Injection: Current Drive by Nonresonant RF Forces <i>P.K. Kaw</i>	19
4 SubGrid Modeling in Reduced MHD Turbulence <i>R.N. Sudan</i>	29
5 Atoms in Strong Electromagnetic Fields <i>C. Oberman</i>	35
Session III: Basic Plasma Physics (II)	
6 Introduction to Professor Nishikawa <i>W. Horton</i>	69

7	Dawson-Oberman Formula for High-Frequency Conductivity and Anomalous Absorption of Intense Electromagnetic Fields <i>K. Nishikawa</i>	71	16	Future Directions in Simulation <i>V. Decyk</i>	217
8	Introduction to Professor Husimi <i>W. Horton</i>	89	17	Radiaton Generation From Electron Beams <i>A.T. Lin</i>	223
9	Early Days of the IPP in Nagoya and Prof. Dawson <i>K. Husimi</i>	91	Session VIII: Accelerators and Light Sources		
10	Very Short Pulse Laser-Plasma Interactions <i>J.M. Kindel, J.M. Wallace, D.W. Forslund and G. Olson</i>	99	18	Accelerators and Light Sources – Opening Remarks to Session VIII <i>A. Sessler</i>	237
Session IV: Space and Astrophysical Plasmas					
11	Professor Dawson's Pioneering Work in Computer Simulations of Space and Astrophysical Plasma <i>B. Lèmbege, J.N. Leboeuf, P. Liewer, and M. Ashour-Abdalla</i>	117	19	Plasma Accelerators <i>R. Bingham, T. Johnston, and U. de Angelis</i>	239
Session V: Inertial Fusion					
12	Suprothermal Particle Generation and Other Plasma Effects in Laser Fusion <i>W. Kruer</i>	161	20	Frequency Upconversion of Electromagnetic Radiation Using Plasmas <i>C. Joshi</i>	255
13	Progress on Ignition Physics for ICF and Plans for a Nova Upgrade to Demonstrate Ignition and Propagating Burn by the Year 2000 <i>J.D. Lindl</i>	177	Banquet in Honor of John Dawson's 60th Birthday		
Session VI: Dawson Isotope Separation Process					
14	Double Helix: The Dawson Separation Process <i>F.F. Chen</i>	191	21	Tribute to John Dawson <i>J. Maniscalco</i>	267
Session VII: Computer Simulation					
15	30+ Years of Plasma Simulation <i>B. Langdon</i>	213	22	Some Personal Comments <i>John and Nancy Dawson</i>	269
John Dawson: Resume and List of Publications					