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Nota di contenuto	<p>""EULERIAN CODES FOR THE NUMERICAL SOLUTION OF THE KINETIC EQUATIONS OF PLASMAS""; ""CONTENTS""; ""EDITOR'S FOREWORD""; ""DEDICATION""; ""SPLITTING METHODS FOR VLASOV-MAXWELL EQUATIONS IN PLASMA SIMULATIONS""; ""Abstract""; ""Introduction""; ""Splitting Scheme""; ""Langmuir Soliton""; ""A. Electron Heating by Langmuir Soliton""; ""B. Propagation of Langmuir Soliton""; ""Electron Cyclotron Wave""; ""Conclusion""; ""References""; ""A VLASOV APPROACH TO COLLISIONLESS SPACE AND LABORATORY PLASMAS""; ""Abstract""; ""1. Introduction""</p> <p>""2. The Vlasov-Maxwell Equations as a Hamiltonian Flow on Phase Space""; ""3. Commonly Used Numerical Schemes""; ""3.1. Particle Methods""; ""3.3. A Comparison between Numerical Techniques""; ""4. The Vlasov Equation""; ""4.1. A Multi-advection Equation""; ""4.2. The Particles Motion, Electrostatic Limit""; ""4.3. Splitting Scheme""; ""4.4. Discrete Representation of the Distribution Function on Functional Spaces""; ""4.5. Discontinuous Galerkin Schemes""; ""4.6. Van Leer Interpolation""; ""4.7. Splines Interpolation""; ""4.8. Fourier Decomposition""; ""4.9. Semi-Lagrangian Methods""</p> <p>""5. An Application: The Weibel Instability""; ""Acknowledgements""; ""References""; ""EULERIAN CONSERVATIVE ADVECTION SCHEMES FOR VLASOV SOLVERS""; ""Abstract""; ""1. Introduction""; ""2. 1D Electrostatic Problems""; ""2.1. The Codes Tested""; ""2.2. 1D Electrostatic Test</p>

Problems"; ""2.3. Summary of 1D Electrostatic Tests"; ""3. Electromagnetic Problems"; ""3.1. 1D Relativistic EM Vlasov Solvers"; ""3.2. 2D Relativistic EM Vlasov Solvers"; ""4. Solving Amp`ere instead of Poisson"; ""5. Electrostatic Problems with Dissipation, Krook Collisions and a Particle Source"; ""6. Conclusion""
""References""""EULERIAN-LAGRANGIAN KINETIC SIMULATIONS OF LASER-PLASMA INTERACTIONS""; ""Abstract""; ""Introduction""; ""2. ELVIS Equations and Numerical Method""; ""2.1. Model and Geometry""; ""2.2. Structure of the Timestep""; ""2.3. f Advection: Cubic Splines""; ""2.4. Krook Operator""; ""2.5. Solving for Ex""; ""2.6. Advance of Transverse Fields E_{\pm} , v_{ys} ""; ""3. Electrostatic Application: Langmuir-Wave Dispersion""; ""4. Application to Raman Scattering""; ""4.1. Kinetic Inflation and Electron Acoustic Scatter (no Krook Operator)""; ""4.2. Inclusion of a Krook Operator""
""4.3. Inclusion of Seed Bandwidth""""5. Conclusion""; ""Acknowledgments""; ""References""; ""GYROKINETIC VLASOV SIMULATIONS FOR TURBULENT TRANSPORT IN MAGNETIZED PLASMAS""; ""Abstract""; ""1. Introduction""; ""2. Vlasov Simulation Methods Based on Symplectic Integrators""; ""2.1. Generalization of Splitting Scheme""; ""2.2. Verification of Generalized Splitting Scheme""; ""2.3. Application to Drift Kinetic System""; ""2.4. Verification of Nondissipative Scheme for Drift Kinetic Systems""; ""3. Turbulent Transport and Fine-Scale Distribution Functions""
""3.1. Steady and Quasisteady States of Plasma Turbulence""
