

1038-35-330

Robert M Strain* (strain@math.harvard.edu), Department of Mathematics, Harvard University, One Oxford Street, Cambridge, MA 02138. *On the Linearized Balescu-Lenard Equation.*

The Balescu-Lenard equation from plasma physics is widely considered to include a highly accurate correction to Landau's fundamental collision operator. Yet so far it has seen very little mathematical study. We perform an extensive linearized analysis of this equation, which includes determining the asymptotic behavior of the new components of the linearized operator and establishing time decay rates for the linearized equation. (Received February 12, 2008)