MCHF studies of electron impact ionization of helium atom HARI
P. SAHA, University of Central Florida, Orlando — Recently extended multi-
configuration Hartree-Fock (MCHF) method [1] for electron impact ionization of
atoms have been applied to calculate triple differential cross sections for electron
impact ionization of helium at excess energies \(\leq 4\) eV for the coplanar geometry.
The results are obtained for equal and unequal energy sharing of the two outgoing
electrons in the Hartree-Fock (HF) and the MCHF approximations to determine the
importance of electron correlation between the two outgoing continuum electrons. In
addition, we have also performed calculation in the variationally determined screening