

QUANTUM COLLISION DYNAMICS INVOLVING PLASMA SHIELDING
EFFECTS WITH PROF. RATKO JANEV

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Abstract. Hot, dense plasmas exhibit screened Coulomb interactions, resulting from the collective effects of correlated many-particle interactions. Since 2008, Prof. Janev has suggested and mentored our group in China to perform comprehensive investigations of plasma shielding effects on atomic physics. Lots of important and coauthored works have been published in the past decade to reveal the importance of plasma screening effects on atomic electronic structure, photon excitation and ionization, electron/positron impact excitation and ionization, and excitation, ionization and charge transfer of ion-atom/ion collisions. In the talk, we will review the typical progresses and physical results we have achieved on quantum collision dynamics involving plasma shielding effects collaborated with Prof. Janev.

References

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