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Abstract for an Invited Paper
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**GEC Foundation Talk: Electron Collisions with Atoms, Ions, and Molecules: Experiment, Theory,
and Applications¹**

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In recent years, much progress has been made in the study of electron collisions with various atomic and molecular species. This includes high-resolution benchmark experiments that cover large angular and energy ranges, highly sophisticated calculations that can provide accurate and extensive data sets, and the use of these data sets in realistic models of plasma discharges. The basic principles of frequently used experimental setups and computational methods will be reviewed, and the current state of the art will be illustrated with numerous examples.

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