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Abstract for an Invited Paper
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Electron collision calculations for atomic systems and the use of this data in fusion and astrophysics modelling codes¹

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A brief overview will be given of the main theoretical and experimental methods used to calculate/measure electron impact ionization cross sections for use in fusion and astrophysics spectral modeling. Care must be taken when processing these cross sections into Maxwellian rate coefficients. Examples will be given showing the importance of the near threshold part of the cross section. Comparisons will be shown between data from current databases and illustrations given of how this data is commonly used in spectral modeling codes. Electron impact excitation and recombination data will also be discussed and future data needs will be highlighted.

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