Kinetic Electron Transport Model

Kinetic Ion/Neutral Transport Model

Electron Produced by Ionization and Stripping

Volume Excitation Rate due to direct particle impact

Atmospheric Model

Volume Emission Rate

Phonon Transport Model

Brightness, Doppler Profile of an auroral emission

Incident Energetic Electron Flux

Incident Energetic Ion or Neutral Flux

Ambient atmosphere

Additional production/loss of the excited state?

Atmospheric absorption/scattering?

Figure 1: Diagram illustrating the modeling of auroral processes.