Radiative transfer aspects of the magnetic coupling

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We present numerical simulations of the quiet sun chromosphere and corona. These models span the entire solar atmosphere from the upper convection zone to the lower corona. Included are non-grey, non-lte radiative transport in the photosphere and lower chromosphere, effectively thin radiative losses in the upper chromosphere, transition region and corona, as well as magnetic field-aligned heat conduction. Coronal heating is effected through the dissipation of currents generated by photospheric motions. We will discuss radiative diagnostics of various phenomena in the chromosphere, transition region and corona as they occur in the simulations and compare these with observations.