Creating Synthetic Coronal Observational Data From MHD Models: the Forward Technique

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We present a generalized forward code for creating simulated coronal observables off the limb from numerical and analytical MHD models. This generalized forward model is capable of creating emission maps in various wavelengths for instruments such as SXT, EIT, EIS, and coronagraphs, as well as spectropolarimetric images and line profiles. The inputs to our code can be analytic models (of which four come with the code) or 2.5D and 3D numerical datacubes. We present some examples of the observable data created with our code as well as its functional capabilities. This code is currently available for beta-testing (contact authors), with the ultimate goal of release as a SolarSoft package.