

**THE MULTI-SPECTRAL ENERGY BUNDLE METHOD APPLIED TO LINE-BY-LINE  
MONTE CARLO COMPUTATIONS**

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**ABSTRACT.** The Multi-Spectral Energy Bundle (MSB) is a method proposed to reduce the computational time of Monte Carlo simulations in media with spectrally dependent properties. The method has previously been applied for FSK computations. In this paper it is presented the first application of the MSB to line-by-line Monte Carlo computations, and demonstrated that the method can significantly reduce the required computational time.