Convergence in Distribution of Hermite Subdivision Schemes

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After recalling the definition of Hermite subdivision schemes as proposed by Dyn and Levin, we introduce the notion of convergence in distribution for Hermite subdivision schemes. We find necessary or sufficient conditions for this type of convergence for arbitrary Hermite subdivision schemes. This is done through the Fourier transform of the sequence of the basic matrix distributions of the scheme. Infinite matrix products are critical for completing the analysis. Lemire and Merrien are the collaborators for this work or for a preparatory work.