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Sommario/riassunto

Scattering-based numerical methods are increasingly applied to the numerical simulation of distributed time-dependent physical systems. These methods, which possess excellent stability and stability verification properties, have appeared in various guises as the transmission line matrix (TLM) method, multidimensional wave digital (MDWD) filtering and digital waveguide (DWN) methods. This text provides a unified framework for all of these techniques and addresses the question of how they are related to more standard numerical simulation techniques. Covering circuit/scattering models in electr