
Abstract: We interpret the usual Cayley transform of linear (infinite-dimensional) state space systems as a numerical integration scheme of Crank–Nicholson type. This turns out to be equivalent to an approximation procedure of the Laplace transform. The convergence properties of such an approximation are investigated.

AMS subject classifications: 47A48, 65J10, 93C25, (34G10, 47N70, 65L70)

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