A dust jacket example

Despite the many Dynamic Phasor frameworks currently available, none have been able to capture all of the qualities that made Classical Phasors so useful: while some require truncations and approximations to be operationalizable — thus sacrificing precision for modelling convenience — some others can represent and reconstruct some signals of interest but do not offer a good theory of complex power under nonstationary regimens. This thesis comprises an endeavour of building a novel Dynamic Phasor Theory, specifically the construction of a theory that offers a representation of nonstationary sinusoids as Dynamic Phasors, as well as reconstructing those signals in time from their phasorial counterpars without the need for approximations or truncations while offering a theory of complex electrical power in nonstationary regimens, justifying the synchrophasor representation of voltages and currents and the steady-state approximation of complex power.

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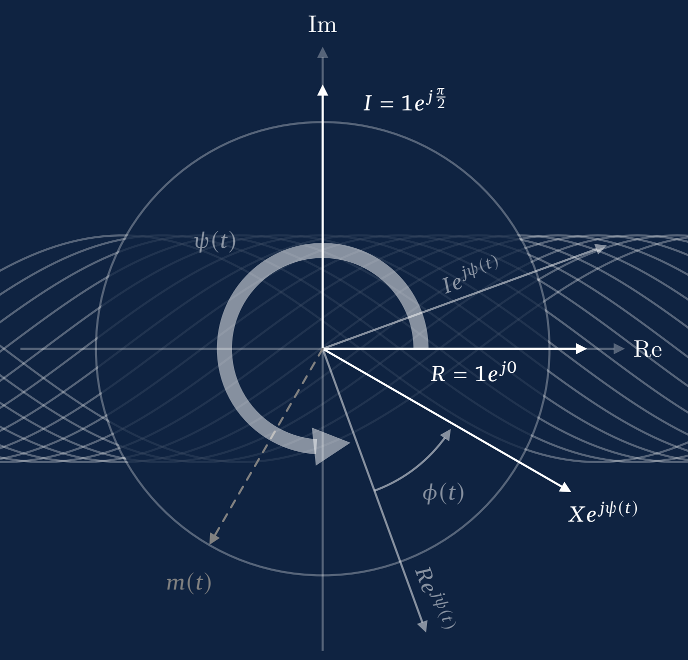
DYNAMIC PHASOR THEORY OF ELECTRICAL CIRCUITS

UNDER NONSTATIONARY REGIMENS

PHD THESIS

DYNAMIC PHASOR THEORY OF ELECTRICAL CIRCUITS UNDER NONSTATIONARY REGIMENS



$$\sum_{i=0}^{n} \beta_i^n(t) X^{(i)} - F(t) = 0$$

$$X(t) = \frac{R_0(t)}{2\pi j} \int_{B_a} \mathbf{M}[X](\mu)\, e^{\mu t} d\mu$$

$$\sigma[X] = \dot{X} + j\omega X$$

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