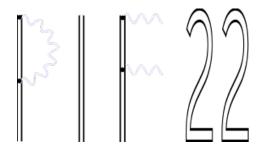Contribution ID: **16**                                                                      Type: **not specified**

# Electrodynamics as toy model for binary gravitational dynamics at high orders

*Wednesday 31 August 2022 09:55 (25 minutes)*

Quantum Electrodynamics (QED) serves as a useful toy model for classical observables in gravitational two-body systems with reduced complexity due to the linearity of QED. We investigate scattering observables in scalar QED at the sixth order in the charges (two-loop order) in a classical regime analogous to the post-Minkowskian expansion in General Relativity. We use modern methods to compute scattering amplitudes and their classical limits to extract the scattering dynamics of relativistic charged bodies in both conservative and dissipative sectors.

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