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## Photon emission within the quark meson model

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Certain aspects of the behavior of strongly interacting matter can be understood in terms of effective models. Among such models is the quark meson model. With a suitable choice of parameters and field content the phase diagram exhibits a 1st order phase transition that terminates in a critical point at nonzero chemical potential.

We apply a method developed by Carter and extended to the quark meson model by Mocsy et al. to calculate thermodynamic quantities and the masses of the dynamic fields in a self consistent manner. The sensitivity of these observables as well as the position of the critical point to the field fluctuations is discussed.

Adding an electromagnetic sector to the model the photon emissivity is computed to leading order to elucidate whether peculiarities appear near the critical point.

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