

# Dilepton production as a signal to explore QCD phase diagram

*Wednesday, 1 March 2023 15:00 (30 minutes)*

We discuss the behavior of the dilepton production rate near the QCD critical point and the critical temperature of color superconductivity. We show that the rate is anomalously enhanced there due to the development of the soft mode associated with the second-order phase transitions. Possible experimental observation of these enhancements in relativistic heavy-ion collisions will be discussed. Reference: [1] T. Nishimura, M. Kitazawa, T. Kunihiro, arXiv:2302.03191 [hep-ph]. [2] T. Nishimura, M. Kitazawa, T. Kunihiro, PTEP 2022 (2022) 9, 093D02

**Primary author:** KITAZAWA, Masakiyo (Osaka University)

**Presenter:** KITAZAWA, Masakiyo (Osaka University)