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Prospects of Dielectron Measurements with STAR BES-II[1] ZAOCHEN YE, Rice Univ, STAR COLLABORATION — Detailed studies of the dielectron mass spectrum in relativistic heavy-ion collisions can help to disentangle its various physics sources. In the intermediate mass range (IMR, $M_\phi < M_{ee} < M_{J/\Psi}$), dielectrons from thermal radiation can serve as a thermometer of the QGP. In the lower-mass range (LMR), the in-medium modification of ρ meson mass spectrum could provide an access for chiral symmetry restoration. Furthermore, dielectrons at the very low mass range will provide another opportunity to measure direct photons. Large event samples and improved detection capabilities with Beam Energy Scan phase-II (BES-II) bring STAR at an excellent position to complete its LMR scan and for the first time extract the QGP temperatures from the IMR. In this talk, I will discuss the prospects of STAR's BES-II dielectron program and review some recent results.

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Zaochen Ye
Rice Univ

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