

# Quark Matter 2019 - the XXVIIIth International Conference on Ultra-relativistic Nucleus-Nucleus Collisions



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## Signatures of chiral symmetry restoration in dilepton production

*Wednesday, 6 November 2019 17:00 (20 minutes)*

We study the structural change of the vector spectral function and integrated production rates of dileptons in the presence of the chiral mixing induced exclusively at finite density. The mixing produces multiple bumps and peaks around the vacuum masses of the rho, omega and phi resonances in the spectral function. The arising modification becomes pronounced when the mass difference between parity partners decreases. In particular, the emergent peaks around the vacuum phi meson in the production rates serves as an excellent signature of the partially-restored chiral symmetry in heavy-ion collisions.

Reference:

[1] C. Sasaki, arXiv:1906.05077.

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