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Momentum anisotropy effects for quarkonium in a weakly-coupled quark-gluon plasma below the melting temperature

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In the early stages of heavy-ion collisions, the hot QCD matter expands more longitudinally than transversely. This imbalance causes the system to become rapidly colder in the longitudinal direction and a local momentum anisotropy appears.

In this talk we study the heavy-quarkonium spectrum in the presence of a small plasma anisotropy.

We work in the framework of potential non-relativistic QCD at finite temperature.

We inspect arrangements of non-relativistic and thermal scales complementary to those considered in the literature.

In particular, we consider temperatures larger and Debye masses smaller than the binding energy, which is a temperature range relevant for presently running LHC experiments.

In this setting we compute the leading thermal corrections to the binding energy and the thermal width induced by quarkonium gluo-dissociation

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