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Towards the high pT v2 and open heavy flavor in AA using a pQCD+hydro approach JIECHEN XU, MIKLOS GYULASSY, Columbia Univ — We present numerical results of the high p_T pion, open heavy flavor, and non-photonic electron R_{AA} and v_2 at RHIC and LHC from the new CUJET2.0 model, where the running coupling DGLV opacity series is coupled with 2+1D viscous hydrodynamical fluids. CUJET2.0 solved the "heavy quark energy loss puzzle" – the $R_{AA}^{\pi,D,e^-}(p_T)$ computed from this model is highly consistent with existing data – and it predicts a robust crossing between $R_{AA}^{\pi,D}(p_T)$ and $R_{AA}^{B}(p_T)$. We find that within CUJET2.0, the 50% underestimate of $v_2^{\pi}(p_T)$ at both RHIC and LHC can be accounted for by relaxing the assumption that α_{max}, an assumed upper bound of the running coupling in the infrared, is independent of the local temperature field and allowing as small as 10% enhancement of the path averaged α_{max} from in-plane to out-of-plane paths. We speculate the origin of such variations and provide predictions of $v_2^{D,B,e^-}(p_T > 5)$ from CUJET2.0 as future tests to help elucidating this "tricky azimuthal dependence" of jet quenching seen at RHIC and LHC. (Reference: J. Xu, A. Buzzatti, and M. Gyulassy, "Azimuthal Jet Flavor Tomography with CUJET2.0 of Nuclear Collisions at RHIC and LHC", arXiv:1402.2956. To appear in JHEP.)

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