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Estimating transport coefficients of strongly interacting matter with an extended NJL model

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We present some results for transport coefficients in strongly interacting matter in the light quark sector (up, down and strange) obtained with a novel regularization of the quark polarization functions using an extended version Nambu–Jona-Lasinio model which includes a 't Hooft determinant and eight quark interactions at finite temperature and chemical potential. This new regularization solves some inconsistencies in previously used techniques and has a significant impact in some of the cross-sections which enter into the evaluation of the quarks and antiquarks relaxation times and, as a consequence, in the evaluation of transport coefficients.

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