



XLVII International Symposium on
Multiparticle Dynamics (ISMD2017)
September 11-15, 2017, Tlaxcala City, Mexico

Contribution ID : 29

Type : **not specified**

Locating the critical end point using the linear sigma model coupled to quarks.

Monday, 11 September 2017 12:40 (0:25)

Content

We use the linear sigma model coupled to quarks to compute the effective potential beyond the mean field approximation, including the contribution of the ring diagrams at finite temperature and baryon density. We determine the model couplings and use them to study the phase diagram in the baryon chemical potential-temperature plane and to locate the critical end point.

Session

Perturbative and nonperturbative QCD

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Session Classification : Perturbative and nonperturbative features of QCD (I)