Contribution ID: **8** Type: **Invited Talk**

The Linear Sigma Model coupled to quarks to locate the critical endpoint

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 then we specifically localize the critical end point .

Primary authors: HERNANDEZ, Luis Alberto (Instituto de Ciencias Nucleares, UNAM); Prof. AYALA, Alejandro (Instituto de Ciencias Nucleares, Universidad Nacional Autonoma de Mexico); Dr HERNANDEZ-ORTIZ, Saul (Instituto de Ciencias Nucleares, UNAM)

Presenter: HERNANDEZ, Luis Alberto (Instituto de Ciencias Nucleares, UNAM)