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## Chiral phase transition in the non-extensive linear sigma model

### Summary

Within the non-extensive statistical approach, we generalize the linear sigma model.

In the framework of it the chiral phase transition is investigated at finite temperature and baryon chemical potential.

The corresponding non-extensive parameter,  $q$ , indeed affects the critical temperature,  $T_c$ , even when the chemical potential does not vanish.

The critical endpoint (CEP), on the other hand, carries higher chemical potential but lower temperature with  $q$  increasing due to the non-extensive effects.

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