



**ΚΟΙΝΟ ΣΕΜΙΝΑΡΙΟ ΚΕΝΤΡΟΥ ΚΒΑΝΤΙΚΗΣ ΠΟΛΥΠΛΟΚΟΤΗΤΑΣ ΚΑΙ
ΝΑΝΟΤΕΧΝΟΛΟΓΙΑΣ & ΚΕΝΤΡΟΥ ΘΕΩΡΗΤΙΚΗΣ ΦΥΣΙΚΗΣ ΚΡΗΤΗΣ /
JOINT CCQCN -CTP SEMINAR**

Thursday, 26 March 2015

14:15-15:15

2nd Floor Seminar Room of the physics department

Real Time Dynamics and Screening in Finite Temperature QCD

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Abstract

We investigate the low-temperature phase of QCD and the crossover region with two light flavors of quarks. The chiral expansion around the point $(T, m_q=0)$ in the temperature vs. quark-mass plane indicates that a sharp real-time excitation exists with the quantum numbers of the pion. We determine its dispersion relation and test the applicability of the chiral expansion. Finally, we test the predictions of ordinary chiral perturbation theory against lattice results.

