

PAUL SCHERRER INSTITUT



Particle Theory Seminar

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“Field redefinitions and renormalization group equations in
resonance chiral theory”

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Abstract:

The use of the equations of motion and meson field redefinitions allows the development of a resonance chiral theory lagrangian without resonance corrections from higher derivative operators. This is shown by means of the explicit computation of the pion vector form-factor up to next-to-leading order in $1/N_c$. The study of the renormalization group equations for the corresponding couplings demonstrates the existence of an infrared fixed point in the resonance theory. The possibility of developing a perturbative $1/N_c$ expansion in the slow running region around the fixed point is studied.