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Non-Fermi Liquid Fixed Point in a Wilsonian Theory of Quantum Critical Metals

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**Abstract content
 (Max 300 words)
Formatting &
Special chars**

Recently there has been significant interest in new types of metals which cannot be described by Fermi liquid theory. One of the paradigm to understand these metals is by the use of the Wilsonian renormalization group (RG) to study a theoretical model consisting of fermions coupled to a gap less order parameter. In this way low energy fixed points which cannot be described using Landau Fermi theory, but are still perturbative , can be constructed. We will describe these fixed points with a particular emphasis on the renormalization of finite density systems.

**Apply to be
 considered for a student
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Yes

**Level for award
 (Hons, MSc,
 PhD, N/A)?**

MSc

**Main supervisor (name and email)
and his / her institution**

Robert De Mello Koch at Wits university
robert.demellokoch@gmail.com

**Would you like to
 submit a short paper
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Primary author: Mr RABAMBI, Teflon (Wits university)

Presenter: Mr RABAMBI, Teflon (Wits university)

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