



Contribution ID: 25

Type: Oral Presentation

Large N Conformal Field Theory from Gauge Theory/ Gravity Duality

Tuesday, 30 June 2015 14:00 (20 minutes)

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

We consider operators in the $su(2)$ sector of $N = 4$ super-Yang-Mills theory, that have a classical dimension of order N . The correlation functions of these operators receive corrections at large N from non-planar diagrams. We compute the spectrum of anomalous dimensions by enforcing the global $su(2)$ symmetry algebra of the theory. The computation entails computing the exact form of the $su(2)$ generators. Our results provide further support for integrability in large N but non-planar limits of the theory.

**Apply to be
 considered for a student
 award (Yes / No)?**

Yes

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

PhD

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

Prof. Robert de Mello Koch
 email: robert.demellokoch@gmail.com
 University of the Witwatersrand

**Would you like to
 submit a short paper
 for the Conference
 Proceedings (Yes / No)?**

No

**Please indicate whether
this abstract may be
published online
(Yes / No)**

Yes

Primary author: Mr HASINA TAHIRIDIMBISOA, Nirina Maurice (University of the Witwatersrand)

Co-author: Prof. DE MELLO KOCH, Robert (University of the Witwatersrand)

Presenter: Mr HASINA TAHIRIDIMBISOA, Nirina Maurice (University of the Witwatersrand)

Session Classification: TCP

Track Classification: Track G - Theoretical and Computational Physics