



Contribution ID: 303

Type: Oral Presentation

## Memory in non-Abelian Gauge Theory

*Tuesday, 4 July 2017 10:20 (20 minutes)*

This project addresses the study of the memory effect. We review the effect in electromagnetism, which is an abelian gauge theory. We prove that we can shift the phase factor by performing a gauge transformation. The gauge group is  $U(1)$ . We extend the study to the nonabelian gauge theory by computing the memory in  $SU(2)$  which vanishes up to the first order Taylor expansion.

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

Yes

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

MSc

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

Vishnu Jejjala, vishnu.jejjala@gmail.com, Wits University

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

No

**Primary author:** Mr GADJAGBOUI, Bourgeois (Wits University)

**Presenter:** Mr GADJAGBOUI, Bourgeois (Wits University)

**Session Classification:** Theoretical and Computational Physics 1

**Track Classification:** Track G - Theoretical and Computational Physics