



Contribution ID: 1797

Type: **CLOSED - Oral (Non-Student)** / **orale (non-étudiant)**

Weyl orbit functions and conformal field theory

Tuesday 30 May 2017 14:30 (15 minutes)

The modular S matrix is fundamental in any rational conformal field theory, including the Wess-Zumino-Witten (WZW) models. A strong similarity was noticed by the authors between the WZW modular S matrix, or affine S matrix, and certain discretized orbit functions. New properties of the orbit functions were found, mimicking the known characteristics of the affine S matrix. After reviewing this work, we will describe further new relations obeyed by the orbit functions. Finally, we will show how a discretization of the orbit functions, different from the original one, produces exactly the affine S matrix.

Authors: HRIVNAK, Jiri (Department of Physics, Faculty of Nuclear Sciences and Physical Engineering, Czech Technical University in Prague); WALTON, Mark (Department of Physics and Astronomy, University of Lethbridge)

Presenter: WALTON, Mark (Department of Physics and Astronomy, University of Lethbridge)

Session Classification: T3-4 Mathematical Physics (DTP) | Physique mathématique (DPT)

Track Classification: Theoretical Physics / Physique théorique (DTP-DPT)