

Contribution Title: A CONFORMALLY COVARIANT QUANTIZATION OF
THE MAXWELL FIELD IN DE SITTER SPACETIME
Authors: S. Faci, E. Huguet, J. Queva, J. Renaud
Presenting author: Queva J.
Affiliation: Laboratoire APC, Université Diderot-Paris 7
E-mail: queva@apc.univ-paris7.fr
Invited speaker:
YRS seminar: YES

Inspired by the work of Bayen, Flato and Fronsdal on Minkowski spacetime, and Binégar, Fronsdal and Heidenreich on anti-de Sitter spacetime we quantize, *à la* Gupta-Bleuler, the Maxwell field on de Sitter spacetime in a conformally invariant gauge. Following a geometric viewpoint set in previous articles the field is quantized while keeping transparent the action of the conformal group. This quantization is covariant in respect to $SO_0(2,4)$ and consequently under the de Sitter group too. This leads to a two-points function reaching a simple and compact form.

Work in collaboration with: E. Huguet, J. Renaud and S. Faci.