

THE FIELDS INSTITUTE

FIELDS-PERIMETER AFRICA FELLOWSHIP LECTURE **DINE OUSMANE SAMARY** Perimeter Institute

MARCH 19, 2014 AT 2 P.M // FIELDS INSTITUTE

Master Equation of Correlation Functions for Tensorial Group Field Theory



In this talk we provide the closed equations that satisfy correlation functions of the rank 3 and 4 tensorial group field theory. Ward-Takahashi identities and Schwinger-Dyson equations are combined to establish a nonlinear integral equation for the two-point functions. In the 3D case the solution of this equation is given perturbatively at second order of the coupling constant. [arxiv 1401.2096 and forthcoming work].

About Dr. Samary and the Fields - Perimeter Fellowship

The Fields-Perimeter Africa Fellowship is a unique opportunity for new and recent PhD's who are African nationals working in the area of mathematical sciences and fundamental theoretical physics. Dr. Dine Ousmane Samary is its inaugural recipient.

Dr. Samary's research during the fellowship will investigate questions of tensoral group field theory, an approach to a background-independent theory of quantum gravity. As the Perimeter Institute is home to the world's leading research efforts into quantum gravity, it will offer him the opportunity to collaborate with faculty, fellow postdoctoral researchers and students over the next year.

For more information, please visit: www.fields.utoronto.ca/honours/postdoc.html



THE FIELDS INSTITUTE FOR RESEARCH IN MATHEMATICAL SCIENCES

222 College Street, Second Floor, Toronto, Ontario, M5T 3J1 • www.fields.utoronto.ca • 416-348-9710