

Math/Phys seminar, Thursday, Sep 23, 2021
10:30 am on Zoom

[https://purdue-
edu.zoom.us/j/95318625523?pwd=MFNRdmsrQWI3dGdsNXpRa1N5dVd3QT09](https://purdue-edu.zoom.us/j/95318625523?pwd=MFNRdmsrQWI3dGdsNXpRa1N5dVd3QT09)

Meeting ID: 953 1862 5523
Passcode: 184222

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Three dimensional construction of the Virasoro-Bott group

Abstract :

I will present a three-dimensional geometric construction of the Virasoro-Bott group, which is a central extension of the group of diffeomorphisms of the circle. I will first review an analogous construction in 1980's of a central extension of the loop group, which is the group of smooth maps from the circle to a Lie group, where the three dimensional geometry is used in the Wess-Zumino term. I will discuss the corresponding Lie algebra constructions and possible generalizations. Most of the talk will be made accessible to graduate students. Based on the joint work 2107.11693 with Igor B. Frenkel.