



FEZA GÜRSEY INSTITUTE



SEMINAR

Deformations of M-Theory Backgrounds With Field Theory Duals

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Time: 14.00

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Abstract: We construct new M-theory solutions starting from those that contain 5 $U(1)$ isometries. We do this by reducing along one of the 5-torus directions, then T-dualizing via the action of an $O(4,4)$ matrix and lifting back to 11-dimensions. The particular T-duality transformation is a sequence of $O(2,2)$ transformations embedded in $O(4,4)$, where the action of each $O(2,2)$ gives a Lunin-Maldacena deformation in 10-dimensions. The talk will start by a brief review of the Lunin-Maldacena deformation, followed by its generalization to M-theory backgrounds. Then we apply the results to certain M-theory backgrounds, with field theory duals.