**Adiabatic Solutions in General Relativity and Boundary Symmetries**

*Thursday, 8 July 2021 17:50 (20 minutes)*

We use Weinberg’s trick for adiabatic modes in a Manton approximation for general relativity on manifolds with spatial boundary. This results in a description of the time dependent solutions as null geodesics on the space of boundary diffeomorphisms, with respect to a **metric we prove to be composed solely of the boundary data**. We show how the solutions in the bulk space is determined with the constraints of general relativity. We also rephrase our description in the language of geometric continuum mechanics (see e.g. [1]). We show for the solutions we propose, the **Hamiltonian constraint becomes the real homogeneous Monge-Ampere equation** in the special case of two spatial dimensions.


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**Primary authors:**  Dr KUTLUK, Emine Şeyma (METU); Prof. VAN DEN BLEEKEN, Dieter; Dr SERAJ, Ali

**Presenter:**  Dr KUTLUK, Emine Şeyma (METU)

**Session Classification:**  Mathematical Problems of Relativistic Physics: Classical and Quantum

**Track Classification:**  Alternative Theories: Mathematical Problems of Relativistic Physics: Classical and Quantum