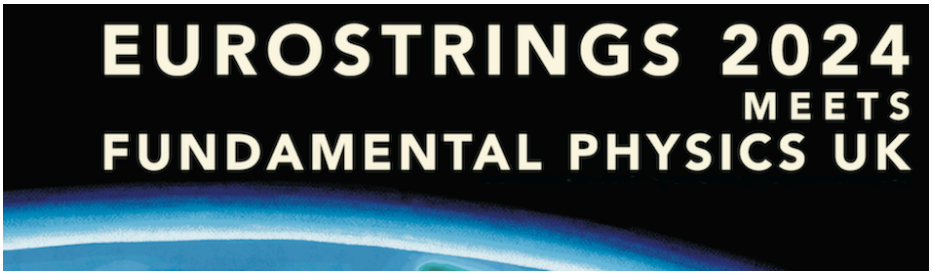

Contribution ID: **25** Type: **Talk in parallel session**

A new non-relativistic holography

Thursday 5 September 2024 15:10 (20 minutes)

Formulating holography in spacetimes obtained via a non-relativistic limit, the so-called Newton-Cartan geometries, is a challenging task that nevertheless gives us access to understanding holography in non-Anti de-Sitter spacetimes. In this talk, I will discuss a recently proposed correspondence between non-relativistic string theory in the String Newton-Cartan version of $AdS_5 \times S^5$ and Galilean Electrodynamics in 3+1 dimensions with scalar fields. This duality was obtained as a particular stringy non-relativistic limit of the well-known AdS_5/CFT_4 correspondence, and the dictionary involves a precise match of the infinite tower of non-relativistic symmetries. I will discuss possible quantitative tests, in particular the one regarding matching the string spectrum with the scaling dimension of gauge invariant operators. Time permitting, I will summarise the state of the art of integrability in non-relativistic string theory appearing in this new holographic duality.

Link to publication (if applicable)

1) Newly proposed non-relativistic holography (with J. M. Nieto García): https://arxiv.org/abs/2403.02379

2) Non-relativistic string spectrum (with M. de Leeuw and J. M. Nieto García): https://arxiv.org/abs/2403.09563

Author: FONTANELLA, Andrea (Trinity College Dublin)

Co-authors: Dr NIETO GARCÍA, Juan Miguel (DESY Hamburg); Prof. DE LEEUW, Marius (Trinity College Dublin)

Presenter: FONTANELLA, Andrea (Trinity College Dublin)

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