
Short bio

Vittorio Loreto is a Full Professor of Physics of Complex Systems at Sapienza University of Rome and External Faculty of the Complexity Science Hub Vienna. From 2017 to 2023, he directed the SONY Computer Science Laboratories in Paris, where he also ran the "Innovation, Creativity and Artificial Intelligence" team. In 2021 he founded a new Sony Computer Science Laboratories in Rome (CSL-Rome). Established through a Joint Initiative with the "Enrico Fermi" Research Centre, CSL-Rome is tackling Sustainable Development Goals with specific initiatives focus on Sustainable Cities, the Infosphere and the Augmented Creativity. Loreto's scientific activity is mainly focused on the statistical physics of complex systems and their interdisciplinary applications.

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Title: New scenarios for inclusive and sustainable cities

Abstract:

Modern cities are at the centre of a passionate debate about their future. The recent pandemic exacerbated the existing challenges and made clear the urgent need for a radical rethink of our lifestyles: from the organisation of our societies and cities to the relationship between urban and rural areas, from our production systems to the breaching of ecological ceilings. It is then paramount to tackle urban areas' challenges going beyond pure optimisation schemes, keeping a transformative eye. New tools are thus needed allowing for a tomography of the current situation and "what-if" machines to assess how a change in the current conditions will affect and modify future scenarios. In this talk, I will discuss a few examples corresponding to different coarse-grained views on cities: from modelling cities through socio-economic variables to the urban economic fitness seen through the lens of patents, from microscopic accessibility patterns to the city of proximity.