# URBANISATION AND SUSTAINABLE MOBILITY, BETWEEN NETWORK SCIENCE AND ARTIFICIAL INTELLIGENCE: THE LAGRANGE PRIZE - CRT FOUNDATION 2024 GOES TO MARTA C. GONZÁLEZ

*Turin, 10 October 2024* - **Marta C. González**, of Venezuelan origin but settled in the United States, aged 50, professor in urban and regional planning and in civil and environmental engineering at the University of California Berkeley, is the **2024 winner** of the **Lagrange Prize - CRT Foundation**, the highest international award for Complex Systems and Data Science, established and financed by Fondazione CRT and coordinated by the **ISI Foundation - Institute for Scientific Interchange, based in Turin.**

The research of **Prof. González** focuses on the mobility of people on an urban scale as a key to understanding the interactions between individuals and the urban infrastructure and to addressing the digital and ecological transition. By basing her work on non-traditional data sources, such as those derived from smartphone mobility, and on an interdisciplinary approach that combines network science and artificial intelligence, the winner has developed new methods to study and plan the growth of transport infrastructure, the location of urban services, the adoption of electric and autonomous vehicles, and to make cities more liveable, less polluted, and more resilient to extreme weather events.

According to **Marta González**, a scientist who enjoys observing complex phenomena directly in the field, urban solutions are frequently a compromise between information systems and the understanding of human behaviour, which necessitate the use of new methods and models, including those of artificial intelligence, that shall adapt to the new data sources available.

*"The research of Marta C. González revolutionised the approach to complex problems in urban infrastructure and environmental sustainability. Thanks to her interdisciplinary approach, which combines network science and artificial intelligence, she is able to transform huge amounts of digital data into practical solutions with significant social impact, thus addressing challenges such as urban traffic management, electric vehicle integration and the prevention of catastrophic forest fires. The prestigious Lagrange Prize, conferred to her work, proves the global importance of her research, which provides concrete tools to develop more effective policies and to make cities more liveable",* **said Alessandro Vespignani, President of the ISI Foundation.**

*"The Lagrange Prize-CRT Foundation has always been an acknowledgement for those who contribute to creating an inclusive, fair and secure future"*, explained **Anna Maria Poggi**, President of the CRT Foundation. *"The work of Professor Marta C. González shows how data and artificial intelligence can be useful tools to face contemporary challenges and how they can have a positive impact on society, as they contribute, among other things, to improving the liveability of our cities: the social value of this immense digital heritage has always been at the heart of the activities carried out in synergy by the CRT Foundation and the ISI Foundation with the Lagrange project and OGR Torino, which are now becoming a reference point for studies on AI for good".*

For 16 years, **CRT Foundation** and **ISI Foundation** have been awarding researchers and scientific personalities who stand out for their excellence in complexity studies: economists, physicists, biologists and epidemiologists of international stature who provided a fundamental push to the development of multidisciplinary collaboration and applied research on fundamental issues for equitable and sustainable development.

The award ceremony for the **Lagrange Prize-CRT Foundation 2024** will be held on **Thursday 24 October at 6 p.m.**,      at **OGR Torino** (Corso Castelfidardo 22) Binario 3.

The event will be followed by a conversation on the topic of **"Sustainability in the era of Artificial Intelligence"**, which will involve, in addition to the winner, Prof. **Fabio Pammoli**, President of Fondazione AI4Industry, and **Fosca Giannotti**, Professor at the Scuola Normale Superiore di Pisa and member of the Scientific Committee of the ISI Foundation. The conversation will be moderated the journalist of La Stampa Bruno Ruffilli.

**LAGRANGE PRIZE - CRT FOUNDATION: HALL OF FAME**
2008 Yakov Grigorievich Sinai (mathematician, Russia) and William Brian Arthur (economist, UK)
2009 Giorgio Parisi (physicist, Italy)
2010 James J. Collins (bioengineer, USA)
2011 Albert László Barabási (physicist, Hungary/USA)
2012 Lada Adamic (social network researcher, USA) and Xavier Gabaix (economist, France)
2013 Duncan J. Watts (sociologist and social network scientist, Australia) 2014 Mark Newman (physicist, UK)
2015 Panos Ipeirotis (computer scientist, Greece) and Jure Leskovec (computer scientist, Slovenia)
2016 John Brownstein (epidemiologist, Canada)
2017 Danielle S. Bassett (physicist and neuroscientist, USA)
2018 César Hidalgo (physicist, Chile/USA)
2019 Iain D. Couzin (biologist, UK) and David Gruber (biologist and explorer, USA)
2023 Tina Eliassi-Rad (Professor of Computer Science at Northeastern University, Boston)

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**CRT Foundation**

Established in 1991, it is the third largest Italian foundation of banking origin in terms of assets. It has disbursed a total of more than 2 billion euros, thus allowing the realisation of more than 42,000 projects for art, research, training, welfare, the environment and innovation in the North West. It also promotes activities in the logic of impact investing for social and environmental development: one of the best examples in Europe is the urban regeneration project of OGR Torino. CRT Foundation is active in the main international networks of philanthropy.
**www.fondazionecrt.it**

**ISI Foundation**

The ISI Foundation is a private non-profit research centre established in Turin in 1983 and co-founded by CRT Foundation. The ISI Foundation's mission focuses on scientific research and higher education in the fields of data science, complex systems, and application of data and computational models to social impact and public health. The activities of the ISI Foundation combine local relevance and global impact with an interdisciplinary scientific culture and with the ambition to train the next generation of talent to face the complex challenges of our time. For four decades, the ISI Foundation has been supporting the creation of a network of first-class researchers and institutions that enables the exchange of knowledge between academia, government, industry, global agencies and non-profit organisations in order to contribute to the impact of science on social, economic and cultural growth.

www.isi.it