THE 2025 PREMIO LAGRANGE-FONDAZIONE CRT AWARD GOES TO SCIENTIST IYAD RAHWAN FOR HIS STUDIES OF THE SOCIAL INTERACTION BETWEEN MAN AND MACHINE

NOT JUST A SET OF DATA AND ALGORITHMS, ARTIFICIAL INTELLIGENCE IS A COMPLEX SYSTEM THAT SHAPES CONTEMPORARY SOCIETIES AND FEEDS OFF THE DATA THAT WE OURSELVES PRODUCE

Turin, 27 October 2025 – "*If I had to describe to a child what image to associate with Artificial Intelligence, I would draw a metallic mechanical robot. Designed and built like an automobile that responds to precise commands and which, thanks to its huge potential, is capable of both shaping society and being influenced by it at the same time*".

This is how Syrian-born scientist, Iyad Rahwan, a researcher of human-machine interaction in contemporary society, whose scientific career has taken him to Australia, the United Arab Emirates, the USA and Germany, describes how intelligent machines play a role not only in technology but also in social interaction and relationships, reflecting the biases, norms, and moral choices of the community.

As a result of his work on AI, seen not just as a set of algorithms and data but as a complex system that has social effects and influences the interactions and behaviors between humans and machines, Professor **Iyad Rahwan** has been awarded the **Premio Lagrange – Fondazione CRT 2025,** the highest international recognition for the Science of Complex Systems and Data, established and funded by Fondazione CRT and coordinated by the **ISI Foundation – Institute for Scientific Interchange, based in Turin.**

The work of Professor Rahwan and his team at the Berlin Max Planck Institute for Human Development, starts out from the premise that artificial intelligence has the ability to influence every aspect of human life while, at the same time, the human ecosystem, comprising our languages, our values, our history and our biases, represents the "food" that nourishes AI.

This creates what we call a **co-evolution**, in which the machines learn from the data that we humans create and are shaped based on our collective, often flawed, behavior.

How do you observe a machine in its natural habitat? For the professor, the outputs and behavior of live, deployed systems must be studied systematically. This isn't always enough, however, as today's technological tools have a high degree of complexity and unpredictability. In some cases, an algorithm designed for one purpose can have undesired side effects when deployed on a large scale. A new scientific framework is needed, one that leverages biology, economics and social sciences in order to understand all the phenomena that emerge when millions of human beings and AI interact.

Is AI really a new form of intelligence or is it just a mirror of human intelligence? The professor's research comes to the conclusion that both these propositions are true, that AI is a mirror in which we see ourselves, our society, our knowledge and our human failings reflected back at us in a distorted way.

At the same time it also represents a new form of intelligence, which is not a mirror of human thought, but rather an exploration of completely alien territories that must be studied in depth.

This framework also provides for the issue of ethics, with the data collected by the scientists and recounted in the Moral Machine Experiment and Machine Behaviour research projects showing that there is no one single, universal ethical AI. The goal must not therefore be to find a one-size-fits-all ethical code to program into machines, but instead to create processes that allow for different communities and cultures to deliberate and decide for themselves what values their machines should reflect.

The societal dilemmas of AI are not just abstract, intellectual enigmas, they are profoundly human. This is why **Iyad Rahwan** has turned to art to find a way to translate the societal impact of a complex algorithm into a visceral experience. With his media art projects, exhibited in many important cultural centres, the professor documents in a series of paintings how intelligent machines can shape humans' perception of the world.

"Many of the past winners are personal academic heroes of mine, who inspired me to join the field of Computational Social Science over 15 years ago. It is, therefore, a great honor and a privilege for me to be awarded the Lagrange Prize alongside these amazing scientists. I also feel strongly that I am receiving this prize not only on my own, but also on behalf of all my amazing former and current students and other lab members. Doing interdisciplinary work requires a leap of faith by people from different disciplines to work together on hard questions, and I feel fortunate to help catalyze such teamwork" **says this year's winner of the Premio Lagrange – Fondazione CRT 2025, Iyad Rahwan.**

"Professor Rahwan's research is at the crossroads between computer science and social sciences. His work is essential testimony that helps us understand the human-AI co-evolution, or how the mutual influence between humans and machines arises and develops and how it influences the choices, the norms and the values that characterize our contemporary society. For Professor Rahwan, machines with AI are social organisms. Knowing how they are built is not enough, we need to study them through their interactions and the effects they create on the real world. The prestigious Premio Lagrange rewarding his work is testimony of the importance today of considering technology not just as a set of data and algorithms but rather a complex system that shapes our contemporary way of life" **said Alessandro Vespignani, Chair of the ISI Foundation.**

"*The Premio Lagrange–Fondazione CRT, promoted together with the ISI Foundation, our constant partner in innovation and research, is a true example of how institutions can collaborate to generate knowledge, innovation and social impact* – **maintains Anna Maria Poggi, Chair of Fondazione CRT**–. *Data science and artificial intelligence have an extraordinary potential to transform and to do good, but this digital revolution needs to be led and co-constructed, including by philantrophic institutions, who have the possibility and the responsibility to look to the future, unconstrained by market or short-term considerations. Fondazione CRT invests funds and energy to strengthen the innovation ecosystem and promote research capable of generating value for society. The work of Professor Rahwan, exploring the relationship between artificial intelligence and human behaviour, embodies this approach in the best way possible: by seeing technology as a system that shapes our time, where science, ethics and social responsibility come together*".

Fondazione CRT and **ISI Foundation** for 17 years, have been rewarding researchers and scientific communities that stand out for the excellence of their work in studying complexity: internationally renowned economists, physicists, biologists, epidemiologists who have given vital impetus to the multidisciplinary collaboration and research applied to the key challenges of fair and sustainable

development.

The **Premio Lagrange–Fondazione CRT 2025** award ceremony will be held on **Tuesday 28 October at 6.30 pm**, **at the OGR Torino** (corso Castelfidardo 22) Platform 3.

A discussion will follow between the award winner **Iyad Rahwan** and Professor **Teresa Numerico** (Roma Tre University), moderated by journalist **Andrea Capocci,** focussing mainly on the themes of the prize and the impact of artificial intelligence on society.

PREMIO LAGRANGE – FONDAZIONE CRT: THE ROLL OF HONOUR

2024 Marta C. González (civil and environmental engineer, USA)
2023 Tina Eliassi-Rad (Computer Science, USA)
2019 Iain D. Couzin (biologist, UK) and David Gruber (biologist and explorer, USA)
2018 César Hidalgo (physicist, Chile/USA)
2017 Danielle S. Bassett (physicist and neuroscientist, USA)
2016 John Brownstein (epidemiologist, Canada)
2015 Panos Ipeirotis (computer scientist, Greece) and Jure Leskovec (computer scientist, Slovenia)
2014 Mark Newman (physicist, UK)
2013 Duncan J. Watts (physicist and sociologist, Australia)
2012 Lada Adamic (social network researcher, USA) and Xavier Gabaix (economist, France)
2011 Albert László Barabási (physicist, Hungary/USA)
2010 James J. Collins (bioengineer, USA)
2009 Giorgio Parisi (physicist, Italy)
2008 Yakov Grigorievich Sinai (mathematician, Russia) and William Brian Arthur (economist, UK)

Fondazione CRT
Fondazione CRT, established in 1991, is Italy's third largest banking foundation in terms of net assets. For more than thirty years, it has been supporting communities in Piedmont and Valle d'Aosta because it believes in caring for, nurturing and celebrating people and the local area. To date, it has allocated over €2 billion to the north-west, enabling more than 45,000 projects to support young talent, enhance artistic and cultural heritage, promote research, training and welfare, protect the environment, stimulate innovation and invest in projects that generate measurable economic, social and environmental value. Its mission is clear: to promote sustainable and inclusive development for a fair and responsible future. One of its most noteworthy projects is redevelopment of the OGR Torino, transformed from railway repair facility into a permanent laboratory of innovation, culture and the future. Fondazione CRT is part of the main national and international philanthropy networks.
www.fondazionecrt.it

ISI Foundation

The ISI Foundation is a private non-profit research centre established in Turin in 1983 and co-founded by Fondazione CRT. The Foundation's mission focuses on scientific research and advanced training in the data science and complex systems fields, examining how big data and computational models can be applied to the social impact and public health spheres. The organisation's activities combine local relevance and global impact with an interdisciplinary scientific culture and the ambition to train the next generation of talent to tackle the complex challenges of our time. For four decades, the ISI Foundation has supported the creation of a network of leading researchers and institutions facilitating the exchange of knowledge between academia, governments, industry, global agencies and non-profit organisations, with the aim of contributing to the impact of science on social, economic, and cultural growth.

www.isi.it

Press Office, ISI Foundation Imprese
di Talento
Daniele Salvaggio | press@isi.it + 39. 335.64.15.411