



The 2016 CRT Foundation - Lagrange Prize awarded to John Brownstein

The first and most important international recognition in the field of complex systems awarded a pioneer of digital epidemiology, the sector that studies the traces left by Internet users, to improve public health

John Brownstein is the 2016 edition winner of the CRT Foundation - Lagrange Prize. The Canadian researcher, professor at the Harvard Medical School and director of the Computational Epidemiology Group of the Boston Children's Hospital, follows Panos Ipeirotis and Jure Leskovec in the Hall of Fame of the first and most important international recognition dedicated to the study of complex systems, promoted by the CRT Foundation of Turin with the scientific coordination of the ISI Foundation.

These are the **motivations** behind the decision of the jury members of the CRT Foundation – Lagrange Prize to give the acknowledgement to the scientist:

Prof. John Brownstein is awarded the CRT Foundation - Lagrange Prize for his outstanding interdisciplinary work at the intersection of digital epidemiology, computational modeling and public health that has opened the door to a deeper understanding of the complexity of health systems. Prof. Brownstein is best known for his research on new methods and applications in public health surveillance. Prof. Brownstein is also a truly exceptional scholar engaging the public around critical health issues. His work led to major advances in the control and prevention of diseases and the development of innovative public health systems, including HealthMap, an internet-based global infectious disease intelligence system

John Brownstein can be considered **one of the pioneers of digital epidemiology**. Due to the expansion of communication networks, connectivity and services for mobile devices, this dynamic research sector is revolutionising the public health world. The possibility to use "**non traditional**" **data sources**, like those originating from social networks, blogs, chats, crowdsourcing websites and platforms, flanks information collected from classic sentinel systems, helping strengthen surveillance models, control and foresee the evolution of epidemics (from simple seasonal flu to global pandemics).

«We had recent examples with the contribution offered by digital epidemiologists to international health institutions to deal with the advance of the Ebola and Zika viruses», pointed out the President of the ISI Foundation of Turin, **Mario Rasetti**. «These are the new routes opened by the instruments of the science of complex systems and by the new data science analysis techniques; in a fusion leading to the birth of one language, essentially of artificial intelligence».

Choosing John Brownstein – a very prolific author, with more than **150 articles** published in peer-reviewed magazines, often quoted by mainstream media like the New York Times and the Wall Street Journal, BBC and CNN, Science and Nature – confirms two key aspects of the history of the CRT Foundation – Lagrange Prize: the first is its ability to recognise and reward personalities who always move **in the forefront in the relations between science**, **modern society and daily life**; the second is the leaning towards an **interdisciplinary view**, dictated by the vary nature of complex systems. An opening towards the variety (also geographical origin) and the interconnection of modern scientific research that is truly evident in the Prize's **Hall of Fame**: since 2008 the following have received the Prize: the Russian mathematician Yakov Gregorievich Sinai and the British economist Bryan Arthur, the Roman physicist Giorgio Parisi (2009), the American bioengineer James Collins (2010), the Hungarian physicist (of Rumanian origin with a US passport) Lazlò Barabasi (2011), the US social network expert Lada Adamic and the French economist Xavier Gabaix (2012), the Australian sociologist Duncan Watts (2013), the British physicist Mark Newman (2014),





the Big Data researchers Painos Ipeirotis and Jure Leskovec (originally respectively from Greece and Slovenia, both moved to the US and received the Prize in 2015).

The CRT Foundation – Lagrange Prize is part of the **Lagrange Project**, an initiative created by the CRT Foundation to sustain a **culture of innovation and research**: not only with an emblematic, international acknowledgement like the Prize, but also through PhD and applied research grants concentrated locally.

«The pioneer work of John Brownstein in the medical-health field proves how the new frontiers of science move increasingly through knowing how to draw a patrimony of information of fundamental importance for the progress that improves the quality of life for individuals from an indistinct mass of data – states the General Secretary of the CRT Foundation Massimo Lapucci – the competitiveness of our Country and territory revolves round this. After all, I am convinced that the new era of Big Data can revolutionise philanthropy; turning data into 'fuel' useful for the growth of non-profit as a sector that generates high value for all areas of Society».

Following tradition, the CRT Foundation — Lagrange Prize award ceremony takes place during a special event. **On Thursday 6 October at 18:00**, in the Foyer del Toro of **Turin's Regio Theatre**, in an evening opened by the show *II suono nello specchio* ("Sound in the mirror") interpreted by Emiliano Masala, John Brownstein will receive the prestigious acknowledgement in the presence of Massimo Lapucci and Mario Rasetti. Another appointment punctually accompanying the award ceremony is the renewal of the **international scientific fellowships program of the ISI Foundation**. The new Fellows for the 2016-2018 three-year period, presented yesterday in the Salone d'Onore of the CRT Foundation, are: Luca Maria Aiello (Bell Labs Cambridge), David Gutelius (Motiva, The Data Guild), Alessia Meregaro (Università Bocconi) and Wouter Van den Broeck (iMinds).

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The award ceremony will be streamed live on www.lastampa.it

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