

LEAVING A MARK IN HAVANA: LEO P. KADANOFF (January 14, 1937 – October 26, 2015)



Kadanoff in Havana. Leo during his talk “Synchronization: a simple process?” that served as the opening lecture of the scientific meeting “Complex Matter Physics: materials, dynamics and patterns” (MarchCOMeeting’12), celebrated in Havana, from March 6 to 9, 2012. (Photo: O. Ramos).

“I was very impressed by the high quality of physics research in Cuba. There are so many people with good ideas!” said Leo P. Kadanoff to the *Revista Cubana de Física* in an interview published in 2012¹. That happened shortly after visiting Cuba in March 2012 to participate in a scientific conference. His determination to join the activity helped “pulling over” a number of other colleagues, which undoubtedly contributed to the high quality of the meeting. He also gave the opening speech, and was the head of the Best Poster Selection board –where he did a really thorough job which served as a source of inspiration to quite a few young Cuban researchers and students. A few months later, while I briefly visited the University of Chicago, he and his wife Ruth² invited me to have dinner at their place. In a word; during the few years we were in contact, he revealed

many of his virtues, both scientific and personal ones.

Unfortunately, Leo passed away a few days ago, by October 26. He was born in New York, and did his undergrad and graduate studies at the University of Harvard. While his early work dealt with superconductivity, his best known contributions to Physics are related to the interpretation of second-order transitions in terms of scaling and universality. His insights to that part of Physics are universally accepted as seminal, and were acknowledged in many ways, such as the Buckley Prize of the American Physical Society, the Wolf Prize in Physics, the Boltzmann Medal of the International Union of Pure and Applied Physics, and the Lorenz Medal –I personally believe that a Nobel Prize in Physics could have easily been included in the list.

Even much after his “golden years” of scaling and universality by the late 1960’s, Leo had the curiosity and momentum to work in the emerging field of Self-Organized Criticality in the early 1990’s; I particularly learned from one his papers were the subject of avalanche distributions in growing sandpiles was studied in a systematic way through simulations –a “humble” approach without grand unification pretensions, but highly illustrative in many ways. Perhaps it was the same scientific humbleness that Leo showed when he approached me during the Havana 2012 meeting with the following comment about a poster authored by a Cuban team: “After discussing with the authors, Ernesto, they were right; I was wrong”.

I will miss Leo, as does most of the international Physics community.

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¹From “A conversation with Leo P. Kadanoff”, *Revista Cubana de Física*, vol. 28, No. 1E, pages 1E4-1E5 (2012)

²Physicist Ruth Ditzian Kadanoff.