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51st Winter School of Theoretical Physics February 9-14, 2015. Invitation letter

Dear Professor Lo Franco,

The Organizers of the 51st Winter School of Theoretical Physics (Feb. 9-14, 2015, Lądek Zdrój) on:

"Irreversible dynamics: Non – (linear, local and Markovian) manifestations"

have pleasure to invite you cordially to take part in the School activities as one of the lecturers. We intend to load upon you one lecture hour.

In order to ensure a representative selection of topics and lecturers we have appointed the International Scientific Committee

- R. Alicki (Gdańsk)
- F. Benatti (Trieste)
- H. P. Breuer (Freiburg)
- D. Chruściński (Toruń)
- J. Lörinczi (Loughborough)
- C-A. Pillet (Toulon)
- B. Zegarliński (London)

We are aware of a number of major theoretical contributions to theories of nonlinear, non-locally induced and non–Markovian stochastic processes that were completed in the 70ties and 80ties of the XXth century. Those were the golden years of the more or less traditional semigroup theory as well. A revival and new developments in that theoretical framework, in various areas of physics and mathematics, are being documented nowadays, specifically with a strong emphasis on quantum problems. A significant departure from the semigroup framework proved to be necessary in the study of open quantum systems.

We ask your not only for an active participation in charge of the lecturer, but also for a counsel concerning the fine tuning of our preliminary "manifesto", that is still amenable to various modifications:

 The main purpose of the School is to create a platform for an exchange of modern viewpoints/ideas on the irreversible dynamics, that are physics- inspired but whose range might extend from theoretical physics proper, through mathematical physics towards pure mathematics. That includes a broad semigroup dynamics framework, considered as a conceptual basis and as a departure point towards modern approaches to open quantum systems. In the latter case the semigroup description generically defective and various non-Markovian dynamics scenarios need to be classified and understood.

For your information:

• Winter Schools of Theoretical Physics, known also as Karpacz Schools, have been organized by the Institute of Theoretical Physics of Wrocław University since 1964. The 50th School is being scheduled for 2-9 March 2014. The list and published proceedings info of former Winter Schools, including data about our own participation in this long-term endeavor you will find through:

http://www.ift.uni.wroc.pl/conferences/list/type/Karpacz

Concerning the travel. We shall cover your local expenses, including the trip from Wroclaw to the conference site and back, the conference fee and accommodation costs. Unfortunately, we cannot contribute to any international transportation to and from Poland. The suggested arrival date to Wrocław is 7 or 8 Feb. 2015, while the recommended departure date is 15 or 16 Feb. 2015. We shall assist in hotel reservation arrangements in Wrocław, if necessary. We urge you to stay with us during the whole duration period of the School.

We would be grateful for communicating us your decision as soon as possible.

• Organizers: Lech Jakóbczyk and Robert Olkiewicz (Wrocław), Piotr Garbaczewski (Opole)

On behalf of the Organizers: Lech Jakóbczyk (<u>lech.jakobczyk@ift.uni.wroc.pl</u>)