

Milano, August 11<sup>th</sup>, 2016

**LETTER OF APPRECIATION on**

**2016 ALTERMAN CONFERENCE ON GEOMETRIC  
ALGEBRA AND SUMMER SCHOOL ON KÄHLER  
CALCULUS**

**at The Transilvania University of Brasov, Romania,  
August 1<sup>st</sup> – 9<sup>th</sup>, 2016.**

Dear 2016 Alterman Conference and Summer School  
Organizers and Committees,

I just returned to Milano from Brasov and I want to take a moment to thank you for making your conference and summer school such a worthwhile experience. I know you spent many months planning those events, and it showed. I especially liked your selection of topics and invited speakers.

According to my humble knowledge, for the first time in the West scientific history, from speakers' presentation emerged clearly, with sounding examples, the current paradigm shift from "Science 1.0" to "Science 2.0" in scientific and engineering applications we are experiencing, even at the social level today.

Many "Science 1.0" researchers and scientists up to scientific journals assume that statistics, associated to the "continuum hypothesis" assumption, is the ultimate language of science and it is even the traditional instrument of risk-taking. Unfortunately, deep epistemic limitations reside in some parts of the areas covered in risk analysis and decision making applied to real problems.

In 1924, the fresh idea of a wave description associated to elementary discrete systems has emerged from a major ontological paradigm shift with respect to Classical Physics, which still provides the framework of the vision of Nature of most current scientists and engineers, since 1687. In turn QFT (Quantum Field Theory) emerged from that major ontological paradigm shift with respect to Classical Physics.

Unfortunately, this change of paradigm has not yet been completely grasped by many current Science and Technology disciplines, so that not all the implications of this change have been realized hitherto, even less their related applications. So, the fresh approach, developed under the "discreteness hypothesis" assumption, in specific scientific disciplines, is considered in peculiar application areas only, historically.

Over more than three centuries, the above two large scientific research areas (continuum based and discreteness based) have followed separate mathematical development paths with no articulated synergistic coupling. That is the main reason why the "Science 2.0" approach is still mostly overlooked by traditional scientific and engineering researchers for complex system multi-scale modeling, from system nanoscale to macroscale and beyond.

Unfortunately, the "probabilistic veil" can be very opaque in statistic computation by itself, in a continuum-discrete arbitrary multi-scale environment, and misplaced precision leads to information dissipation, opacity, ambiguity and confusion.

As a matter of fact, to grasp a deeper and more effective representation of reality, researchers and scientists need two intelligently articulated hands: both statistic and combinatorial approach synergistically articulated by natural coupling. Let's say we need a fresh "Science 2.0" approach for short.

That is the reason why an unified mathematical language can offer an effective and convenient "Science 2.0" universal framework, by considering information not only on the statistical manifold of model states but also on the combinatorial manifold of low-level discrete, phased generators and empirical measures of noise sources, related to experimental high-level overall perturbation.

Your conference and summer school in Brasov gave the right perspective to this major and fundamental problem at the core of current Science and Engineering research.

Eventually, I like to appreciate the fundamental contributes of the Organizing Committee and Scientific Commettee members, José G. Vargas (chairman) (U.S.A.), Marius Paun (Romania), Ramon González Calvet (Spain), Panackal Harikrishnan (India), Rafal Ablamowicz (U.S.A.), Nikolay Marchuk (Russia), Zbigniew Oziewicz (México), and Waldyr Rodrigues Jr. (Brazil), for their fine

work, topic selection, excellent planning and realistic scheduling that resulted in informative and smooth running meetings.

For the conference, I like to appreciate the presentation of all speakers, with specific focus on contributors from Oliver Conradt, Paolo Freguglia, Ramon González Calvet, José G. Vargas, Rafal Ablamowicz, Danail Brezov, Pierre-Philippi Dechant, G.R. Vadiraja Bhatta, B. R. Shankar, Vladimir Dzhunushaliev, Jaroslav Hrdina, Marie Bieber, Kuncham Syam Prasad, Kedukodi Babushri Srinivas, Bhavanari Satyanarayana, Nikolay Marchuk, Zouhair Mouayn, Panackal Harikrishnan, Bernardo Lafuerza Guillén, K.T. Ravindran, Dimiter Prodanov, Akifumi Sako, Hiroshi Umetsu, D. S. Shirokov, N. Zamani, and A. Khojali.

Next year's organizers will have their hands full trying to equal the quality of this year's event. Thanks for making your conference and school so worthwhile.

You created an outstanding model to follow and to share for the future: a unified mathematical language and universal computational framework to offer effective and convenient solutions, towards a more sustainable economy and wellbeing, in a global competitive scenario.

Best regards,

Rodolfo A. Fiorini

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