

***ECONOMETRICS MODELS VERSUS PHYSICS MODELS AND  
THEIR FINAL CONECTIONS WITH SOCIAL ECONOMIC  
REALITY, THE EDUCATIONAL SYSTEM  
AND SCIENTIFIC RESEARCH***

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**Abstract.** *Research today becomes impossible without a special way of thinking and modelling the reality as an object with more and more dimensions. From the great diversity of sciences, the importance of the concepts of models in mathematics and economics has been emphasised by the complexity of contemporary scientific research, which has made them evolve, in an interdisciplinary manner, along at least five directions: the econometrical models, the econophysics models, the sociophysics models, the quantum economics models, and the science of complexity models. The new way of thinking the continuity of the natural processes using models from physics, apparently forgotten in point of the importance of its proximity to the nature and reality, seems to be decisively prevalent in the new scientific researches forming new many domains of activity, belonging to the vast field of the quantifications of progress in social economic reality. The physics models used in econophysics or sociophysics do not analyze only economic or social processes and phenomena, but rather their continuity in evolution or involution. The authors of the present paper propose a different approach to the modelling process, a new systemic approach which involves new attitudes, ranging from acknowledging the differences between mental or intellectual models of econometrics and experimental models of physics, to repositioning the educational system, as well as scientific research. Finally, the paper illustrates, through the new paradigm of an apparent conflict between the two species of models, an old dispute between mental and experimental attitude in scientific research and academic education.*

**Keywords:** *mental model, experimental model, econometric model, econophysics model, sociophysics model, quantum economics model, science of complexity model.*