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A Bridge from Physics to Biology

Abstract. Through molecular biology, the ‘atomistic paradigm’ tries to remove from the analysis of living matter every element of what appears as the distinguishing character of the chain of the biological processes: their cooperative, collective aspects. Living matter appears, on the contrary, governed by Quantum Field Theory (QFT), spontaneously creating order when the thermodynamical conditions are right. ‘Electrodynamical coherence’ (EC) is the most promising hint for the existence of a bridge between Physics and Biology.