

dwq Quantumbionet



# 4<sup>th</sup> Quantumbionet Workshop The dawn of quantum biology

2011 September 30<sup>th</sup>  
Crema, Italy



*(Gabriele Cavagna)*

Università degli Studi di Milano  
Campus di *Crema*  
Dipartimento di Tecnologie dell'Informazione  
via Bramante 65  
26013 *Crema* (CR)

Notes:

Languages of the Workshop : **Italian and English**

There is **no fee** to participate to the Workshop. The event will be available in streaming on the website:

<http://streaming.dti.unimi.it/live>

## Program Committee

Rita Pizzi, Co-chair, University of Milan <rita.pizzi@unimi.it>

Massimo Pregnolo, Co-chair, University of Pavia <maxp@quantumbionet.org>

Eliano Pessa, University of Pavia <eliano.pessa@unipv.it>

Massimo Cocchi, University of Bologna <massimo.cocchi@unibo.it>

Paolo Manzelli, University of Firenze <egocreatet2011@gmail.com>

Roberto Denti, Quantum Art Group – Milan <roder53@gmail.com>

The 3<sup>rd</sup> Quantumbionet Workshop 2010 awarded the "Giorgio Napolitano Medal" as a part of the Florentine New Renaissance Project conducted by Paolo Manzelli, Massimo Pregnolo and Robert Pope.

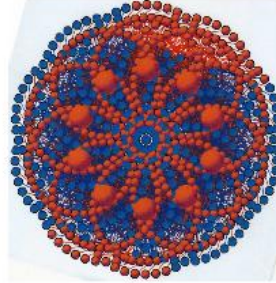
The 4<sup>th</sup> Quantumbionet Workshop should be based both on a deep conceptual innovation of bio and nanosciences and by contemporary Quantum Art.

--> **More INFO to:**

Stefania Villani, Conference Director/Media Liaison, University of Milan <stefania.villani@unimi.it>



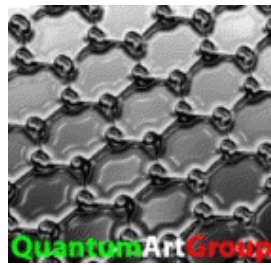
<b>8:30</b>	<b>Registration</b> ( <i>the workshop is free of charge</i> )		
<b>9:00</b>	<b>Welcome talk</b> <i>Massimo Pregnolo QuantumBioNet Founder</i>		
<b>9:10</b>	<b>Plenary lecture</b> ( <i>Chairman: Rita Pizzi</i> )		
	Cognitive operations in the first person perspective	Wolfgang Baer	Information Science Department Naval Postgraduate School Monterey, CA
<b>10:00</b>	<b>Session I: Quantum Science</b> ( <i>Chairman: Massimo Pregnolo</i> )		
	Energy concentration in composite quantum systems and the emergence of dissipative structures	Emilio del Giudice	INFN - Milan
	Fractals, coherence and brain waves	Giuseppe Vitiello	Department of Physics - University of Salerno
	Entanglement in natural systems. Difficulties and calculation problems	Giuliano Strini	Department of Physics - University of Milan
	The non-algorithmic side of the mind	Paola Zizzi	Department of Psychology – University of Pavia
	Von Neumann chain and the Implicate Order: Philosophical Speculations	Michele Caponigro	Epistemologia della Complessità - University of Bergamo -
	Session I Concluding Remarks	Gianni degli Antoni	Dipartimento di Tecnologie dell'Informazione - University of Milan -
<b>13:00</b>	<b>Lunch break</b>		
<b>14:00</b>	<b>Session II: Quantum Biology</b> ( <i>Chairman: Massimo Cocchi</i> )		
	A quantum-mechanical description of ion motion within the confining potentials of voltage gated ion channels	Gustav Bernroder	Dept Organismic Biology - Neurosignaling Unit - University of Salzburg
	Hameroff-Penrose Theory: an Update	Rita Pizzi and Massimo Pregnolo	University of Milan - Dipartimento di Tecnologie dell'Informazione - Campus di Crema - Quantumbiolab, Department of Drug Sciences, University of Pavia
	EPR analysis of Microtubules and computational studies of their interactions with drugs	Andrea Danani	SUPSI - Department of Innovative Technologies - Laboratory of Applied Mathematics and Physics – Manno (CH)
	Quantum Mind in Biological Evolution.	Giuseppe Damiani	Institute of Molecular Genetics (IGM) - National Research Council (CNR) - Pavia.
<b>15:30</b>	<b>Session III: Quantum Paradigm in Psycopathology</b> ( <i>Chairman: Fabio Gabrielli</i> )		
	Platelet membrane viscosity and psychiatric classification	Massimo Cocchi	Dipartimento di Scienze Mediche Veterinarie. Alma Mater Studiorum, University of Bologna
	Depression between biology and culture. An ontological interpretation	Fabio Gabrielli	Institute Paolo Sotgiu Quantitative Psychiatry and Cardiology L.U.de.S. University, Lugano, Switzerland
	A Clinical Case of Dissociative Identity Disorder treated with Music Integrative Neurotherapy™	Alexander J. Graur	Medicamus Italiana and University of Torino, Postgraduate School in Health Psychology
<b>17:00</b>	<b>Session IV: Quantum Art Round Table: Art and Science in the evolution of social systems.</b> Exhibition and discussion with the public in the presence of: Roberto Denti, Massimo Pregnolo, Paolo Manzelli, Pietro Antonio Bernabei, Alberto D'Atanasio, Roberto Michele Suozzi, Daniela Biganzoli, Antonia Colamonic		



Gabriele Cavagna - Quantum Art

## **QUANTUM BIOSYSTEMS**

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