

Cycles' inheritance from the cosmos

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**DEDICATED TO THE 90TH
ANNIVERSARY
OF PROFESSOR FRANZ HALBERG**

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PROCEEDINGS

SYMPOSIUM

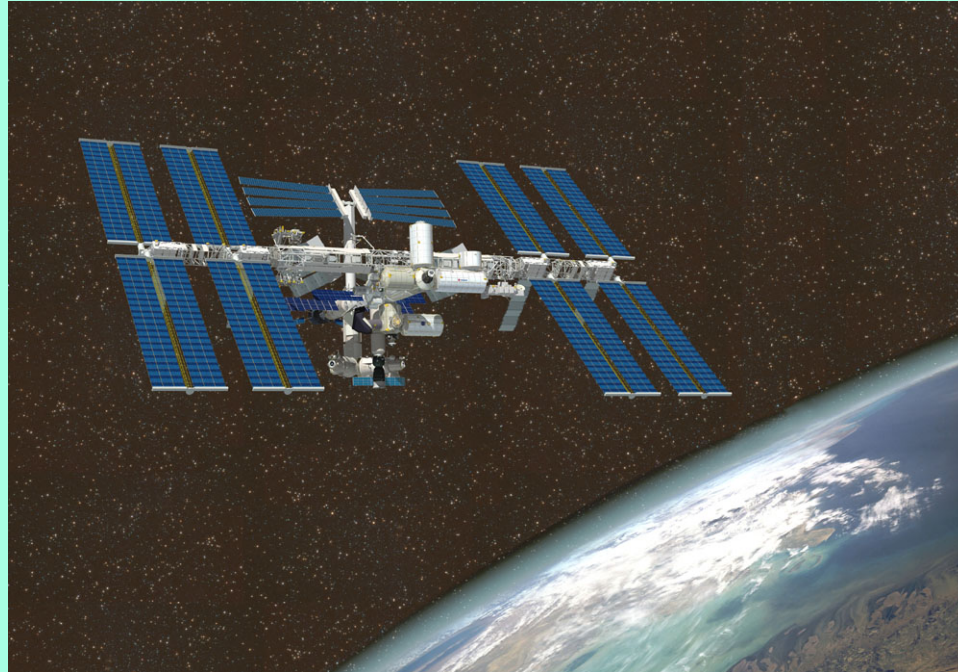
NONINVASIVE METHODS IN CARDIOLOGY 2009

Edited by: Halberg F., Kenner T., Fišer B., Siegelová J.

AUGURI DI LUNGA VITA FRANZ!!!



Proposal for the European Science Foundation New Theory and Technologies for Improvement of Health and Performance Status in Microgravity



Abstract

- Safeguarding space crew health (the avowed aim of space agencies internationally) from harmful variations in water and metabolism due to microgravity and cosmic radiation forms the leitmotif of this project. For this purpose, a coherent scientific expertise from diverse fields of biochemistry, biophysics, physics and medicine is essential to bear on comprehensive health issues facing humans in outer space and/or on other planets. Valenzi et al (QCT) would study prevention and therapy involving nutrition, food intolerance, pain, stress and infection in beyond-the-earth environments using modern low frequency electromagnetic techniques. As part of the QCT group, Zhadin et al propose to investigate the important influence of electromagnetic fields on metabolism through variations in the cyclotron resonance frequencies. Basic variations in water due to radiation and reduced gravity and their effect on humans in space would be studied by Srivastava et al. Avino et al propose biochemical studies of variations in amino and fatty acids under microgravity and cosmic radiation. Gorgo et al propose air pressure fluctuations as a countermeasure to adapt to extreme conditions of long-term space flight. Halberg et al propose to monitor astronaut cycles for their health and for science.

MONITORING CYCLES OF ASTRONAUTS FOR THEIR HEALTH AND FOR SCIENCE

• *Franz Halberg and Prof. Germaine Cornelissen*

Abstract

- Both astronaut health and biomedical science would be served by a tele-hygiene system which monitors blood pressure, heart rate and other body functions in space and changes therein due to reduced gravity and extra terrestrial electromagnetic fields. It is also to interpret -for risk management- a spectrum of inter modulating infraradian-to-ultraradian rhythms and trends

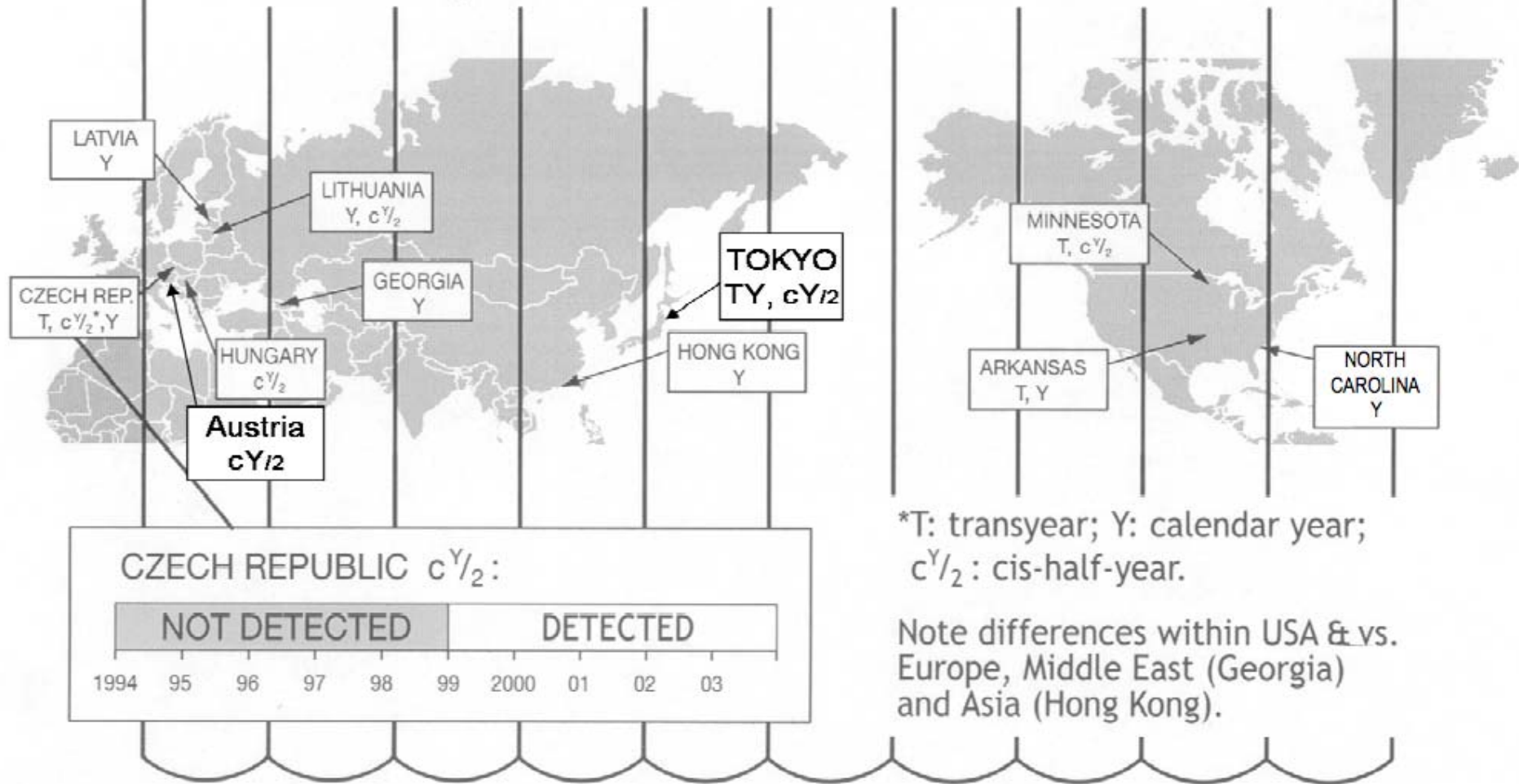
Biospheric cycles

Endogenicity is clear for some **ultradian** rhythms, as in the case of the heart in toto and of its cells beating in vitro, whether or not they have nonphotic magnetic counterparts

Han HW, Shao DL, Wu JY, Cornélissen G, Halberg F. Chronobiologic approach to beat-to-beat variations of cultured murine myocardial cells. *Cell Biophysics* 1991; 18: 217-229.

About 5-month cycles characterize human 17-ketosteroid excretion (KS) during 15 years, circulating melatonin in human blood as well as systolic and diastolic blood pressure, cardiac arrhythmia and sudden cardiac death, the latter shown on the next slide.

Geographic and time-varying differences in the spectrum of sudden cardiac death*

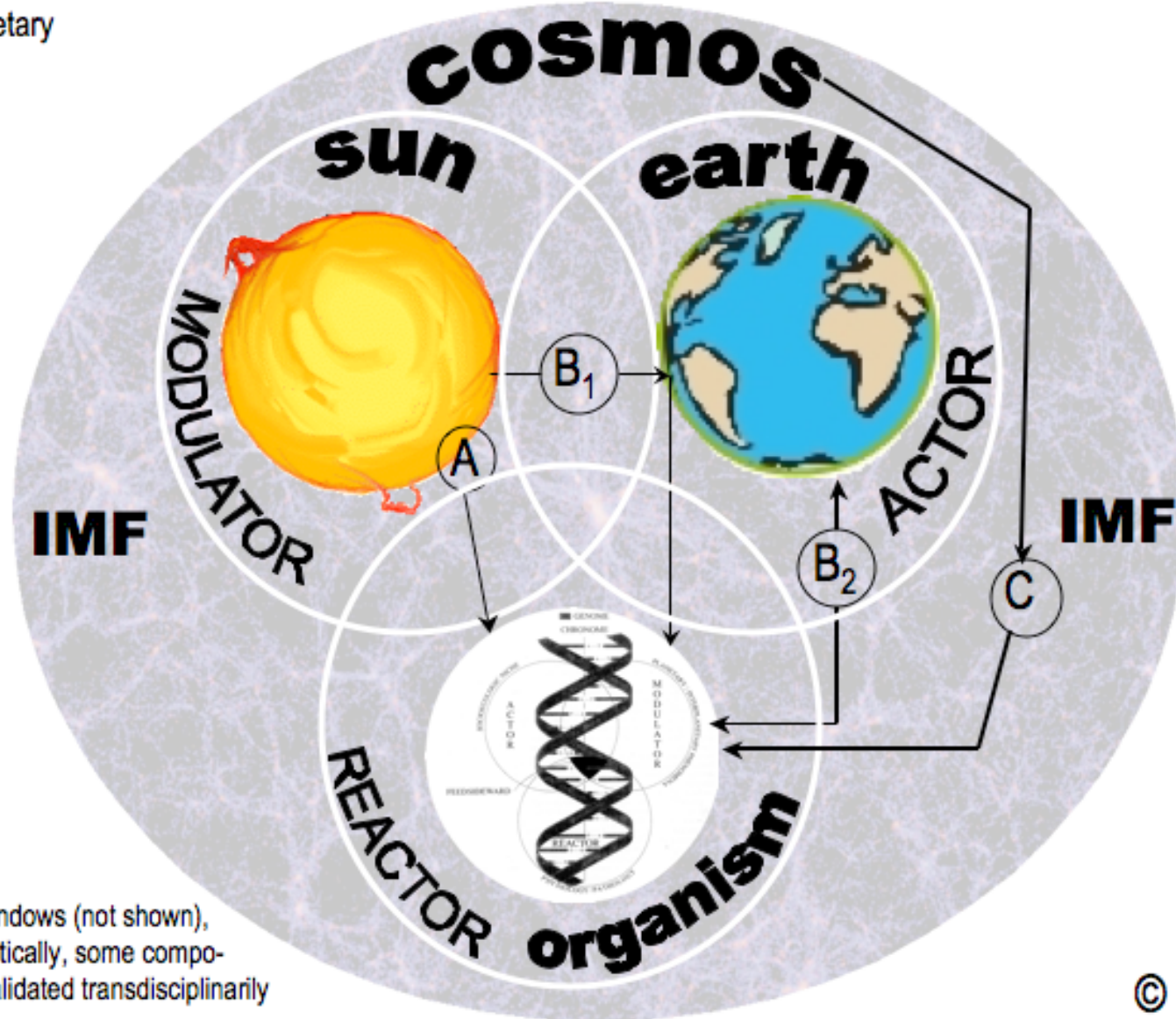


Halberg F et al. J Applied Biomedicine 2006; 4: 1-38. http://www.zsf.jcu.cz/vyzkum/jab/4_1/halberg.pdf.

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**GENETICALLY CODED BIOSPHERIC RESONANCE*
INCLUDING TERRESTRIAL SOLAR AND/OR COSMIC CYCLES**

IMF: interplanetary
magnetic field



*in frequency windows (not shown),
predicted theoretically, some compo-
nents already validated transdisciplinarily

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Epilogue

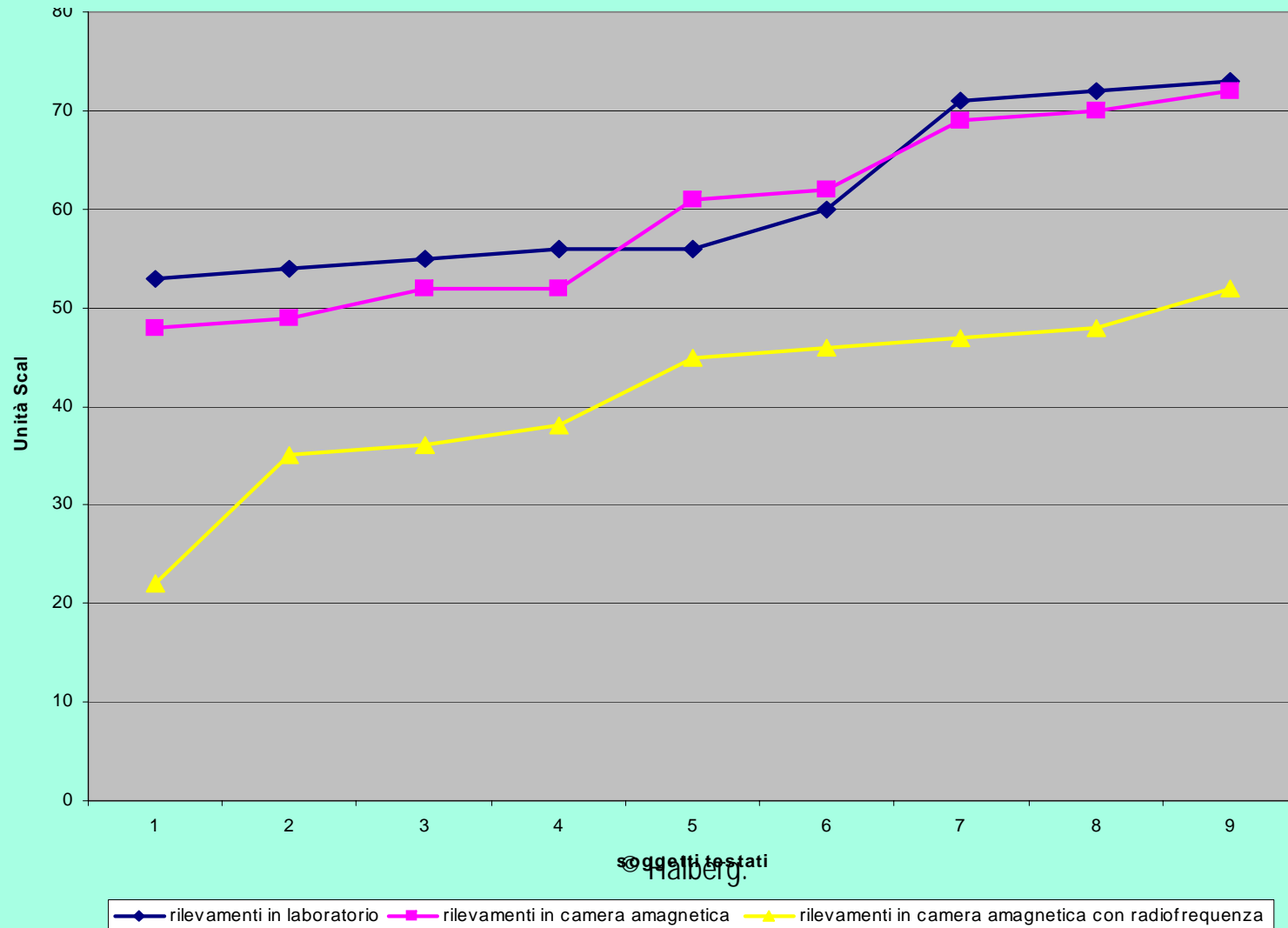
By population-mean cosinor, a period specified by Charles L. Wolff of 0.56 year, as a beat of solar rotations at different latitudes, was just found, albeit with an amplitude smaller than that of a precise year, in biophoton emissions by the human hand, measured by Frederic Laager.

The Ohm Law in Therapy and Biology

- Measures highlighted in subjects with meteoropathies and various pathologies, that the electrical resistance increased in physical electric circuits with a medium of about 43 scale unites of SEP corresponding to 130,000 Ω .
- After the administration of a coherent therapy, we saw a resistance fall in medium at 39,000 Ω (70 us), with an improvement of bioelectric performance due to an increase of physical electric currents, in accordance with Ohm's law, $I = V/R$
- Power in the biological system vary with $W = V \times I$, with functional correlations (performance status, immunological status, muscle power, pain, inflammation, allergy, dyspnea, etc.)

Effects on the conductivity by magnetic field of cell phone antenna 10 V/mt - 900 GHz on seven men exposed in amagnetic room

V.I.Valenzi, S. Grimaldi, G. Quartieri, G. E. Gigante; G. Mileto, G. Monaco: *Osservazioni sulle variazioni bioelettriche nell'uomo indotte da campi elettromagnetici in camera amagnetica*. Ricerca Aerosp. Pag. 33-38, Anno XXI- N. 1. 2005



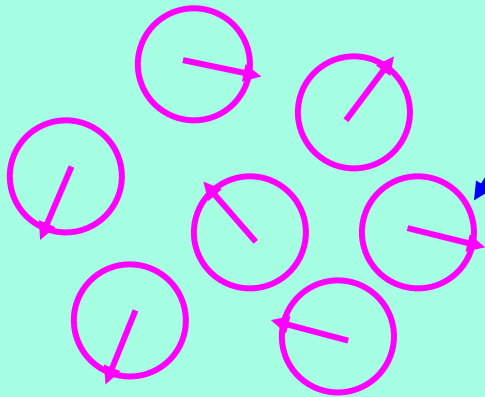
Quantum Coherent Interactions

Luca Gamberale

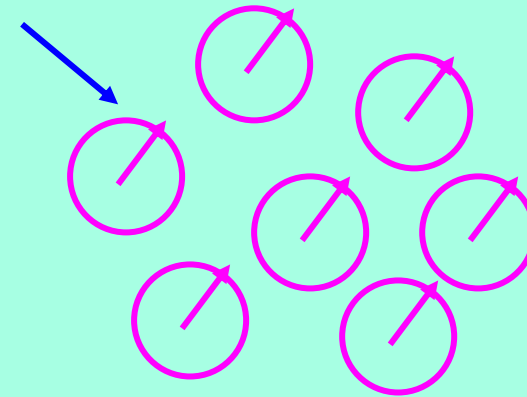
Pirelli Labs - Materials Innovation Advanced Research (Milano, Italy)

N scatters

Quantum phase



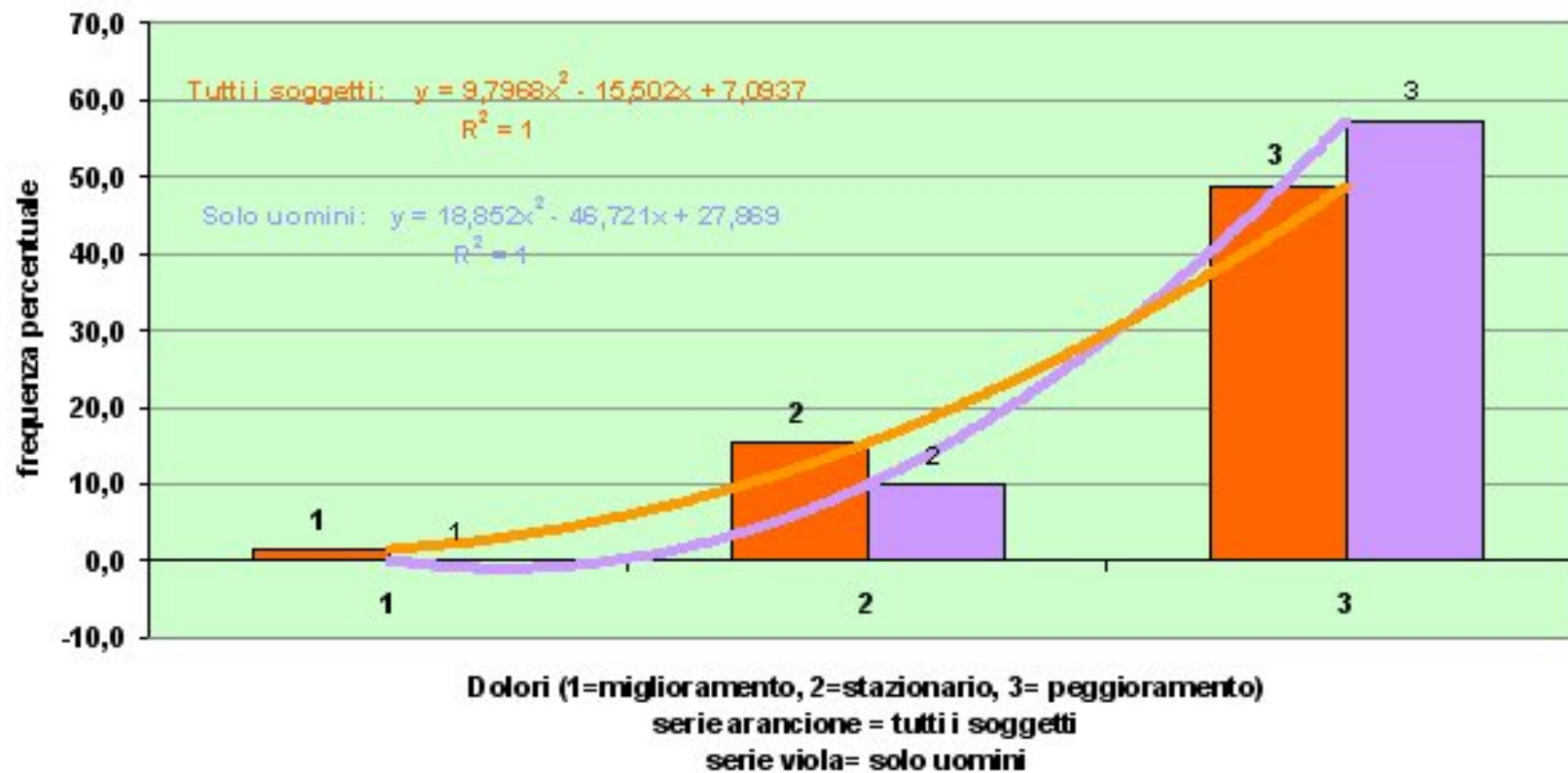
Quantum incoherent
Cross section like N



Quantum coherent
Cross section like N²

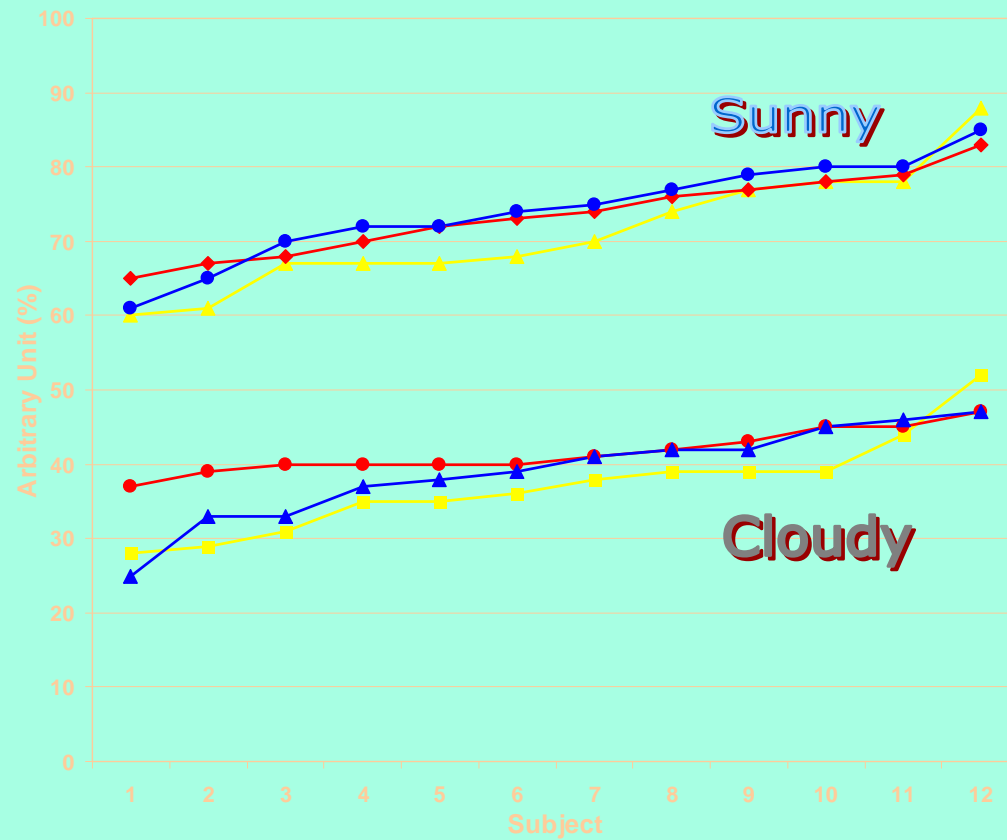
N ~ 10²³ !!!
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PAIN AND PERTURBATED WEATHER



Health Subjects

Homogeneity of 3 groups of health subject



LUNAR EFFECTS ON THE BIOLOGICAL PROCESS?

- 'Lunar cycles' have been reported in many forms of life, including human beings (Hauenschild, 1960; Neumann, 1981; Rusak, 1981; Vrana et al., 1988). beyond the use of the moon as an orientation cue (Papi, 1960; Wallraff, 1981). The gestation time of terrestrial placentals has been viewed as constituting a 30-day (circatrigintan) multiple (Brown, 1988). Lunar relationships have been considered for the magnetic response of organisms (Brown et al., 1960) and for human birth (Menaker and Menaker, 1959).
- **And the history of lunar cycle in agriculture?**