



## Concluding Address

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**Abstract.** Before to conclude officially this workshop — far from me the idea to attempt some concluding remarks already dealt at the meeting with various burning by Edward Sion, Jean-Pierre Lasota, and René Hudec —, I would like to comment few highlights coming out from our fruitful week of discussions about *The Golden Age of Cataclysmic Variables and Related Objects*, without any pretension of completeness.

Undoubtedly the advent of spacecrafts gave a strong impulse to astronomy; starting roughly from middle 1970ies almost all the electromagnetic spectrum was continuously surveyed by the many space experiments. A large amount of excellent-quality data coming from space experiments rendered the data, acquired during many centuries from the ground, only a small fraction of the total now available (e.g. Giovannelli & Sabau-Graziati, 2004). Then, **The GOLDEN AGE of Multifrequency Astrophysics** began.

Multifrequency observations are now considered by the whole community essential for a better understanding of the physics governing the universe. Pioneer campaigns (since middle 1970ies) of multifrequency observations and workshops on Multifrequency Behaviour of High Energy Cosmic Sources made by Giovannelli's group have contributed to the advance on our knowledge of the physics of the Universe. In addition to those workshops another fundamental contribution has come from the series of workshops on "Frontier Objects in

Astrophysics and Particle Physics" where the advance in the study of particle physics has been discussed since 1986.

The prospect for the future is a clear convergence of the 'photonic astrophysics' and 'particle physics' into the *newborn astroparticle physics* field.

In the context of the modern astroparticle physics, the renewing interest about cataclysmic variables — detected by the INTEGRAL observatory — and related objects, such as recurrent novae, and the intriguing problem about the progenitors of Type Ia supernovae, have been the main reasons for organizing this workshop.

After this workshop it appears evident that the most suitable approach for studying CVs from a physical point of view is to consider them as gravimagnetic rotators.

The detection of several SW Sex systems having orbital periods inside the so-called 'period gap' opens a new interesting problem about the continuity in the evolution of CVs.

In order to fully understand the emission properties and evolution of CVs, the mass-transfer process needs to be clearly understood, especially magnetic mass transfer, as

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well as the properties of magnetic viscosity in the accretion discs around compact objects. Consequently, the investigation on the magnetic field intensities in WDs appears crucial in understanding the evolution of CVs systems, by which it is possible to generate classical novae and type-Ia supernovae.

In those catastrophic processes the production of light and heavy elements, and then the knowledge of their abundances provides strong direct inputs for cosmological models and cosmic ray generation problems.

During this fruitful workshop, organized under Peaceful Surroundings, we hope to have demonstrated once more the *Vulcano Theorem* enunciated in 1984 in my concluding address: **It is possible to develop science seriously even if smiling.**

Before to close this short address, I would like to recall few wonderful words against any kind of war written in 1904 at the beginning of the Russian-Japanese War by the great Lev Nikolàevic Tolstòj in the pamphlet "Think again": *The human conditions in the war are "like spiders in a glass"*. This pamphlet is not only against carnage: *"Again the suffering that benefits nobody, again the lies, and again the universal process of stupidity, the turning of men into beasts..."*, ...but that is also against the racism and the hypocrisy of the educated: *"Scholars ... deal extensively with the laws of the migration of peoples, the relationship between the white and the yellow race, between Buddhism and Christianity, and according to their deductions and considerations justify the killing of men ..."*. ... It shows unequivocally the Tolstoyan base of Gandhi's non-violence doctrine: *"I cannot act in any other way than God requires of me, and therefore, as a man, I cannot take part in any war, neither directly nor through a third party, nor by giving orders, nor by cooperating in any form, nor by encouraging doing it: I cannot, I will not and I will not do it."*

Dr Daisaku Ikeda reported in the booklet *For Today and Tomorrow* - the thought of 30th May, Soka Gakkai, 1999: *The one who has many friends has greater opportunities for growth. In this way, one both makes society a*

*better place, and lives happier and more satisfied. In all cases, human relations, the interpersonal interaction and communication are of vital importance. We must establish and nurture friendship and contacts with many people, both in our environment, and in society in general.*

*In this manner our life will open up and will flourish.*

**This is the reason of the great scientific and friendly success of this workshop!**

And finally I would like to conclude with the wonderful statement of Antoine de Saint Exupéry from his "The Little Prince": **One sees clearly only with the heart. What is essential is invisible to the eye'.**

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And finally, on behalf of the SOC and LOC, I am pleased to thank all participants and especially the speakers for their active contributions in rendering this workshop updated with their talks, alive with their discussions, and friendly with their attitudes. A special thank to the three colleagues and friends (Edward Sion, Jean-Pierre Lasota, and René Hudec) who kindly accepted the not easy task

of making the concluding remarks of the workshop.

I hope to meet all of you once again during our next Palermo Workshop.

### References

Giovannelli, F., Sabau-Graziati, L.: 2004, *Space Sci. Rev.* 112, 1.