

Speech

by

Professor Siegfried Grossmann

held at the festive banquet on Saturday, July 3, 1999,

in Maribor during the International School and Conference

”Let’s face chaos through nonlinear dynamics”

It is my great pleasure, at this festive banquet just in the middle of the International School and Conference “Let’s face chaos through nonlinear dynamics” to express our wonderful feelings. This event is going to be a great success, something which we are very happy to take part in. And I am very sure that I can say this on behalf of all participants.

A tradition is successfully continued, starting six years ago in Ljubljana through the absolutely fantastic engagement of some students, which were so enthusiastic about chaos and nonlinear dynamics. Already then they have been scientifically and -I dare to guess- financially advised by Professor Marko Robnik.

Starting 1993, repeated in summer 1994 in Ljubljana, continued in Maribor in 1996, and this year, for the fourth time, in Maribor again, it already is a tradition. At the same time as people enjoy the Lent festival we are here to learn at and contribute to the ”Marko Robnik School on Chaos” as an event of scientific tradition.

There are many good rational reasons for our good mood, from the ”scientific point of view”. First, the School-Conference perfectly meets the interdisciplinary option.

The contributions, posters, lectures are really widespread: mathematics, physics, biology, medicine, etc. Thus there is ample stimulation across the disciplines, across the various fields’ borders, is an exciting mixing of quite alternate experience and expertise. Interdisciplinary research needs, of course, very much the disciplinary mastership and excellence. Those who have not well learned and deeply studied their disciplines cannot be productively work-

ing interdisciplinary. But if we have, we can do much more: we can tackle and solve complex problems which need more than just one discipline's mastery. We better may call it "multidisciplinary" challenges. It is like the building of a house, a cathedral, which also needs several, needs many professions.

Multidisciplinarity can be considered as the future of science!

Second, the School-Conference perfectly meets nonlinearity and complexity, faces chaos with many faces and to its many faces.

Still I urge you not to neglect linearity. It still is a deep source of insight and, locally, "in the small", nonlinearity often appears as linear. Mathematics provides us with great linear theories: Hilbert spaces, operators, Green's functions, invariant densities, and what have you!

Nonlinearity still would be a "stranger in the night" if it were not carried on the reliable shoulders of good linear methods.

Third, the School-Conference perfectly meets the internationality of science and scientists.

And this is something particularly important. It disseminates ideas, results, scientific facts, methods, modern trends into a worldwide community of scientists. Such events as we experience here serve to bring together the best of their fields, the most educated of the various nations to promote innovations in an international web of research institutes. Scientists understand each other beyond all borders. Good international scientific partnership will strengthen personal friendship and will promote a peaceful, a cultural future of welfare for all.

Fourth, it perfectly meets the stimulating atmosphere of a proper mix of generations.

There are participants, young or less young, who contribute and present their most recent interesting results in their sciences or look for new challenges in other fields. There are lecturers and professors who take opportunity to think about an educational presentation of their fields, explaining the scientific essence and the structures of their work. Conducting a school is as important as a conference; and here we have both together. Didn't we

all profit extremely well from our great colleagues when they lectured? How enthusiastically we listened to Richard Feynman's lectures. And who of us could say that he does not deeply depend on the unique lectures, "the Landau-Lifschitz"? And here we note something very interesting: One of the rare cases of a chapter in science which Landau did not yet really cover is nonlinearity and chaos! Thus there is progress in science.

Fifth, this School-Conference perfectly meets the proper mixing of schedule.

Lectures - contributions - discussions - relaxing. May only be that a little more time for discussions between the students and the lecturers might be welcome.

Thus enough good reasons to be in the best mood concerning the full success of this international school and conference. But even more!

Isn't it a wonderful place, this small old city of Maribor?

Isn't it an excellent choice for such a unique event?

On the one hand it is small enough to keep us together, to foster plenty of discussions and scientific as well as nonscientific contacts, exchange of ideas, etc. And, at the same time, it is large enough to avoid the slightest feelings of being fenced in. We can enjoy music, culture, relaxing beyond science.

And, last not least: What a nice, what a wonderful atmosphere!!

Isn't it absolutely pleasant and enjoyable?

One needs not care about anything. All needs are perfectly served.

And, this country reflects so much optimism, success, progress, improvement of life. The people we meet are so very friendly, openminded, simply: nice.

May I conclude, and again I am absolutely sure to be allowed to express this on behalf of all attendants, by expressing our sincerest gratitude to the local organizing committee for providing this marvellous hospitality to all of us, and by furthermore extending our sincerest thanks to the international organizing committee for the scientific attraction they offer to us: Professor Tassos Bountis, Professor Hiroshi Hasegawa, Professor Jean-Louis Pichard,

Dr. Tomaž Prosen, and Dr. Aneta Stefanovska. And this "thank you all" is extended to the excellent and most effective staff of all helpers which I am not able to mention personally.

To all of you

hvala lepa!

thank you!

merci beaucoup!

danke schoen!

You may wonder if I forgot the good spirit of this chaos-school, its Director and Chairman, the "spiritus rector" and deepest source of the success? Of course, I did not. But you will forgive me, if to him I express my gratitudes and thanks in a somewhat more personal manner in addition to extending, of course, also to him my official hvala lepa.

Dear Marko, to convey my deeply felt personal thanks to you, I have brought a small, private gift, something which is -though small- not available everywhere. It is, what in Germany we call a "Raritaet", something rare and special. And it needs your excellent knowledge of the German language, which you speak so impressingly fluent and perfect.

It is the biography of one of the most important predecessors and fathers of nonlinear sciences in one of its sections, in fluid dynamics, and is written by his daughter. It is on

Ludwig Prandtl.

All best wishes for the future

Marko-Robnik-Maribor-School-Conferences on facing Chaos!!

And once more, thank you very much, indeed!