

Daniel Iagolnitzer Foundation Report- December 2004

I) SCIENCE (Mathematical and Theoretical Physics)

Mathematical Physics aims to develop and deepen physical theories in a clear mathematical and conceptual framework. In Theoretical Physics, the emphasis is on the elaboration of new physical ideas and theories, with less importance on rigour.

1. Henri Poincaré prize sponsored by the Daniel Iagolnitzer Foundation

This scientific prize has been established in 1996 in collaboration with the IAMP, International Association of Mathematical Physics. It is awarded by the IAMP to outstanding scientists, as also to young scientists having produced particularly remarkable works in Mathematical Physics. A prize ceremony, with three laureates, takes place during the international Congresses of the IAMP every three years.

There was previously no specific prestigious prize in this domain.

2. Supports to main international conferences on Mathematical and Theoretical Physics

- International Congresses of the IAMP (London 2000, Lisbonne 2003)

- International Conference on Theoretical Physics, Paris, UNESCO, July 2002, which has been an exceptional event in this domain.

- STRINGS 2004, Paris, Collège de France, June 2004.

String Theory hopes to unify fundamental forces. It is a speculative domain of main interest today in Theoretical Physics and from a mathematical viewpoint.

- Symposium Rigorous Quantum Field Theory, Paris (Saclay), Juillet 2004.

Quantum Field Theory is the standard conceptual framework replacing Quantum Mechanics in the relativistic domain.

3. Partnership with the "[Seminaire Poincare](#)"

Similar, in Physics, to the well-known Seminaire Bourbaki in Mathematics, it successfully presents, twice a year, general lectures on topics of interest, to the intention of a large scientific public in the Paris area. Texts of lectures are distributed to participants and corresponding publications follow. A special day took place in July 2004 in the Grand Amphi of the Sorbonne University, in connection with the the conference [STRINGS 2004](#).

4. New partnership with the [IHES](#), Institut des Hautes Etudes Scientifiques (Bures, Paris area). The IHES is a most prestigious French Institution in Mathematics and Physics, of highest reputation at the international level.

The support given in 2004 has been a contribution to its new Conference Centre.

II) SCIENCE: General Physics

Support to the conference "[Physics for Tomorrow](#)", Paris, UNESCO, Janvier 2005, launch conference of the International Year of Physics (year 2005). Besides many Nobel laureates and other scientific personalities, around 500 young students, selected among the best ones from all countries, should be present. The support given will be a contribution to their stay expenses.

III) SCIENCE AND DEVELOPING COUNTRIES

Actions in this domain are already included in previous Parts: supports to international conferences were partly intended to scientists (or students) from developing countries. Specific actions are described in this Part.

1. African Institute of Mathematical Sciences ([AIMS](#)), South Africa

Partnership with the [AIMS](#), African Institute of Mathematical Sciences. The IAMS, created in 2002 in South Africa, aims to contribute to the development of basic and applied branches of science in Africa through high level predoctoral courses for selected students from African countries, and a Centre for basic scientific research (with invited scientists coming partly from Africa and partly

from other countries). It benefits from the support of South-african Universities, as also from [Cambridge](#) and [Oxford](#) Universities in England, and French Universities of the Paris area such as [Paris-11](#). It has received an enthusiastic African and international approval.

DIF has been directly involved in particular with the introduction and development of the "francophone" part of the IAMS.

2. Partnership, since 2003, with the [CIPMA](#), "Chaire Internationale de Physique Mathématique", successfully organized in Benin, a francophone African country.

3. New partnership with the CICUP, Centre Interuniversitaire pour la Coopération avec les Universités Palestiniennes, intended to help palestinian scientists, in particular through travels to France.

IV) OTHER DOMAINS

1. Music

Main partner: the [Academie-Festival des Arcs](#).

This Academie-Festival takes place each year in July in the Alps mountains ([Les Arcs 1800](#)). It includes high level music courses in various domains during the day for selected students, and free concerts for the local public each evening during two weeks. This festival combines excellence and an exceptional conviviality.

The support from DIF has been mainly devoted to the participation of young talented musicians who are not yet largely known and have the possibility to give concerts alone or with well established professionals. A number among them have later on started promising international carrers.

2. New partnership with the "[Association des Laureats du Concours General](#)", prestigious competitive examination organised in France at the end of secondary studies (before University). The support given is a contribution to the organisation of meetings between laureates of different domains and ages, in particular between scientists of various domains, as also between scientists and philosophers,... (prizes of the Concours General are the most famous awards attributed to students at the pre-University level).

3. International Humanitarian Law (IHL)

"Science without conscience is ruin of the soul" (Rabelais, 16th century)

"IHL" is the official term for the rules to be respected in armed conflicts (Geneva conventions,...) under the aegis of the ICRC (International Committee of the Red Cross), such as the interdiction of attacks and bombings of civilian targets and populations. With this new domain, the foundation expresses its wish to contribute to science for knowledge, peace and progress, and its total opposition to science for war and for production of weapons used in contradiction with the IHL.

A first support has been given in 2004 to the Association for the Promotion and Respect of the IHL, recently created under French law in particular by scientists.