

## **Brief note on working structure, proposed programs and first budget estimate for the Institute of Fundamental Physics of the Universe, Trieste, Italy**

The current note refers to and integrates the draft agreement for the constitution of the Institute of Fundamental Physics of the Universe (IFPU), illustrating some of the proposed activities and suggesting a first running cost assessment.

### *Affiliation to the Institute and research programs:*

The affiliation to the Institute is regulated according to the “Art. 10” in the founding agreement of the IFPU. The Institute hosts and promotes the activities in the research programs proposed by the affiliated scientists, as well as other innovative and interdisciplinary research activities devoted to fundamental physics and its links to cosmology and astrophysics.

The research program is supported by Junior Visiting scientists, who are affiliated scientists hired on 2+1 year contracts as postdoctoral fellows (or “assegnista di ricerca”) at one of the founding Institutions. While selected via common international calls and according to the scientific policy of IFPU, a Junior Visiting scientist is an employee of the founding institution granting the salary allocation, in accordance with the founding agreement.

**Foreseen budget:** about 30000 Euro per year per Junior Visiting scientist for the salary, plus 3000 Euro per year for travel expenses.

### *Daily life at IFPU:*

Affiliated scientists guarantee a minimum time residency at the Institute, according to what stated in their research programs; Junior Visiting scientists are permanently resident at the Institute.

Affiliated scientists guarantee that community activities connected to their proposed research programs, including colloquia, seminars, informal seminars, journal clubs and group meetings are held at the Institute. The research program activities are coordinated within an Institute schedule, proposing events on a regular basis, such as, e.g., monthly meetings with two colloquium-style seminars given by two external speakers and addressed to the whole IFPU community, monthly brainstorming meetings on recent highlights in the IFPU research area, seminar and journal club series, and others. The Institute event schedule aims at coordinating, integrating and extending the programs currently active in related research fields at each single Institution participating to the founding agreement. Major events, such as conferences, workshops and schools on topics related to the scientific goals of the Institute, that are currently organized by one of the founding institutions or as a join initiative of some of them, will be integrated in the promotion of research program of IFPU.

**Foreseen budget:** since the main effort will be to coordinate better the currently existing seminar programs, rather than significantly increasing the number of seminars in the current offer, we expect a major part of the seminar budget to be coming from the fraction of the budget currently dedicated from each single founding Institutions to the IPFU-related research fields, possibly with an extra allowance of 10000 Euro per year.

### IFPU special programs:

- Team Research programs: the Institute supports the activity of small groups developing or finalising a project in an area within the scientific goals of the Institute, preferable among those already actively pursued by affiliated members. A team is usually composed of two to four members, with at least half of the members not being affiliated to the Institute, and each program usually lasts one to two weeks. The Institute provides logistic support, including office space and access to the Institute facilities. External members are eligible for financial support, including a contribution to local expenses (accommodation + meals) during the period of stay, and, in some motivated cases, to travel expenses. Programs are selected twice a year on the bases of a research proposal.

**Foreseen budget:** < 5000 Euro per Team Research Program.

- Focus Week programs: the Institute supports thematic programs dedicated to the investigation of specific research topics within the scientific goals of the Institute, selected on the bases of their innovativeness and timeliness. Each program usually lasts one up to two weeks and features the participation of up to twenty experts of the field. The format is usually that of a small scale workshop with a few plenary talks and brainstorming and discussion sessions, also allowing time for working group activities. The Institute provides logistic support, including office space and access to the Institute facilities, and financial support via a contribution to local expenses (accommodation + meals); additional third party financing is encouraged. Programs are selected once a year on the bases of a research proposal.

**Foreseen IFPU budget:** < 16000 Euro per Focus Week Program.

- Visiting Scientist program: the Institute promotes its internationalisation and the development of new research lines through visits of internationally renowned scientists with leading expertise in areas within the scientific goals of the Institute. The program is reserved to long-term visits, namely for a minimum stay of two weeks, up to a maximum of one year. Visitors within the program have the status of affiliated scientist; the salary provided by the Institute is commensurate with the visitor qualifications and experience. Expressions of interest for a Visiting Scientist position are reviewed three times a year on the bases of a research proposal.

**Foreseen IFPU budget:** at startup, SISSA grants initial support for this activity also within the budget of the newly established SISSA Visiting Scientist program. In the following, along with the possible support of other affiliated institutions, we plan to integrate this budget with funds from third parties or sponsors, possibly with dedicated visitor or sabbatical chairs.

### IFPU start-up costs and running costs:

According to the founding agreement, start-up expenses to refurbish and provide new furniture and utilities to the IFPU building, as well as yearly running costs are covered by SISSA.

**First estimate of relative costs:** about 177000 Euro for the startup; about 53000 Euro for running expenses.