



Grant Writing for Early-Career Researchers in Physics

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Teaching staff

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Reception hours: mon/tue 10:00-11:00

Program of the course:

Lesson 1 (1.5 hours) — Overview of Research Funding Landscape

- Introduction to competitive research funding
- Major funding schemes in physics:
 - **European Union:** Horizon Europe (MSCA, ERC, collaborative projects)
 - **Italy (MUR):** PRIN and related calls
 - **Research institutions:** INFN, INAF, INGV, CNR
- Individual vs collaborative grants
- Career-stage funding opportunities
- Success rates and strategic positioning

Lesson 2 (2 hours) — Anatomy of a Successful Proposal

- Structure of a competitive proposal:
 - Abstract and excellence
 - Scientific objectives
 - State of the art
 - Methodology and work plan (work packages, deliverables, milestones)
 - Impact and dissemination
- Writing techniques:
 - Clarity, coherence, and storytelling
 - Addressing evaluation criteria
- Common mistakes and weaknesses

Lesson 3 (1.5 hours) — Focus on Key Funding Schemes

- **Marie Skłodowska-Curie Actions (MSCA)**
 - Evaluation criteria: Excellence, Impact, Implementation

- **PRIN (MUR)**
 - Structure, national specifics, evaluation process
- **INFN / INAF / INGV / CNR calls**
 - Internal and thematic funding opportunities
- Examples of successful proposals (selected examples and discussion)

Lesson 4 (1 hour) — Budgeting, Administration and Project Management
(with participation from University research support offices)

- Budget design:
 - Personnel, travel, equipment, overheads
- Eligibility rules and financial constraints
- Reporting and financial management
- Interaction with grant offices
- Common administrative pitfalls

Lesson 5 (1 hour) — Open Science and Proposal Evaluation

- Open Science in research proposals:
 - Open access publications
 - Research data management (FAIR principles)
 - Data Management Plans (DMPs)
- Requirements in Horizon Europe and national calls
- Reproducibility, transparency, and impact
- Role of Open Science in evaluation criteria
- Practical strategies for integrating Open Science into proposals

Final exam — Practical Exercise

- Writing exercise:
 - Drafting an abstract
 - Defining objectives and impact
- Group discussion and feedback

Bibliography

European Commission, *Horizon Europe Programme Guide*

APRE, *Guide alla progettazione europea*

M. Porter, *Il vantaggio competitivo*, Feltrinelli

J. Hofmann, *Scientific Writing and Communication*, OUP