Project Q Concept Proposal

Instructions are in blue.

Examples are in red. Please remove them when you use this template.

0. Cover page *(1 page)*

Proposal Title: Search for Inflatons with Noble Quantum Sensors

PI: Marie Skłodowska-Curie (QUP, Univ. Paris)

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Members: Sir John Douglas Cockcroft, Felix Bloch, Maria Goeppert-Mayer

Proposal Date: 2023, January 15

1. Expression of Interest *(2 pages)*

*Please give concise summaries of the following items.*

1. *Science goals: describe in one sentence what scientific mysteries the proposed experiment is targeting.*
2. *Scientific objectives: describe top-level quantitative requirements of the proposed experiment so that comparisons with other proposals or projects on-going or in preparation are possible.*
3. *Scientific investigations: describe the investigations (methods, instruments, observations, analyses, etc.) to be conducted by the proposed experiment, clearly relating them to the scientific objectives of the mission. Also describe the novelty of the search method (novelty as a quantum-field measurement system)*
4. *Schedule, milestones and budget: describe the schedule of the proposed experiment, clarifying what will be achieved by summer 2025 and the end of the fiscal year 2030. Show the budget profile to meet the schedule. Please also state whether there are worthwhile intermediate goals as milestones leading to the final results.*
5. *The commitment level of the PI: describe the FTE of the PI, the status of external funding, plans to obtain it, etc.*

2. Supplemental "One-Pager" *(1 page)*

*Please attach one-page summary slide that graphically describes your proposal.*

3. References *(no page limitation)*

*If you have references, please list here.*