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Preface

It is a great honor and pleasure to dedicate this special issue of Journal of Plasma Physics to our dear friend and colleague Professor Tito Mendonça on the occasion of his 65th birthday on December 28, 2010. Professor Tito is one of the most inspiring scientists in plasma physics, with contributions touching many other fields, using cross-cutting methodologies and novel theoretical techniques, which have led to important contributions and insights. Moreover, he has inspired many students at the Instituto Superior Técnico in Lisbon and mentored a new generation of physicists in Portugal to pursue scientific careers in a wide spectrum of fields from plasma physics to nonlinear optics, from astrophysics to quantum optics.

With this special issue on "Advances in Photon Physics" in his honor, we aim to provide an overview of the wide impact of the ideas and concepts pioneered and developed by Tito over his career, of the wide collaborative network that he established, as well as of the work that he inspired younger generations to pursue. We have invited scientists to contribute with the goal of showcasing the scope and breadth of Tito's contributions; the response has been outstanding providing a clear picture of the impact of Tito's research ranging from the most fundamental concepts in plasma physics, quantum plasmas, cosmology, and nonlinear optics. These papers provide a broad perspective on the impact of Tito's research in plasma, nonlinear, and photon physics.

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