

**MSCA PF 2021 @UniGe**

**Supervisor Expression of Interest**

**MSCA domain  
Physics (PHY)**

- 1. Sante Carloni**
- 2. Flavio Gatti**
- 3. Marco Lepidi**
- 4. Simone Marzani**

## MSCA PF 2021 @UniGe

### Supervisor Expression of Interest

#### 1.

First Name	Sante
Last Name	Carlioni
Orcid ID	0000-0003-2373-2653
Other information	<a href="https://rubrica.unige.it/personale/UkNEW1Jr">https://rubrica.unige.it/personale/UkNEW1Jr</a>
MSCA domain	Physics (PHY)
Research focus area	Cosmology, astrophysics, modified gravity, metamaterials
Department	Department of Mechanical, Energy, Management and Transportation Engineering - DIME
Short description of the department/laboratory/research group	We work on relativistic models for cosmology and compact stars. The aim is to acquire a better understanding of these systems in GR and find new ways to test alternative gravitational theories. We also use relativistic gravitational theories to define new transformational approaches for the design of metamaterials.
Candidate fellows must send their candidature with a short description of their profile to the following email address	sante.carlioni@unige.it

## MSCA PF 2021 @UniGe

### Supervisor Expression of Interest

#### 2.

First Name	Flavio
Last Name	Gatti
Orcid ID	0000-0001-8991-0382
Other information	<a href="https://rubrica.unige.it/personale/VUZDWIJq">https://rubrica.unige.it/personale/VUZDWIJq</a>
MSCA domain	Physics (PHY)
Research focus area	Experimental Astrophysics and Cosmology
Department	Department of Physics
Short description of the department/laboratory/research group	LTD/lab at Department of Physics is developing Low Temperature Detector for Particle, Astrophysics and Cosmology. The Group is presently leading the design and fabrication of the Focal Plane superconducting (TES) 50 mK detector for the ATHENA X-ray Space Telescope (ESA) and the bolometers of the microwave stratospheric telescope LSPE-SWIPE for CMB polarisation measurement.
Candidate fellows must send their candidature with a short description of their profile to the following email address	flavio.gatti@unige.it

## MSCA PF 2021 @UniGe

### Supervisor Expression of Interest

#### 3.

First Name	Marco
Last Name	Lepidi
Orcid ID	0000-0002-8359-032X
Other information	<a href="https://rubrica.unige.it/personale/VUZBULLv">https://rubrica.unige.it/personale/VUZBULLv</a>
MSCA domain	Physics (PHY)
Research focus area	Solid and Structural Mechanics, Metamaterials, Nonlinear Dynamics
Department	Department of Civil, Chemical and Environmental Engineering - DICCA
Short description of the department/laboratory/research group	The members of the research group Metamaterials@DICCA focus their activities on theoretical and applied mechanics of architected materials and acoustic metamaterials. The main active research lines concern the formulation of physical-mathematical discrete and continuous models of crystal and beam lattices and other heterostructures, the spectral characterization and optimization of periodic microstructured materials, the analysis of the linear and nonlinear response of cellular metamaterials enriched by local resonators, vibration absorbers and inertial amplifiers. Complementary topics of interest regard the thermodynamics and multi-field coupling of smart materials and metamaterials with applications oriented to passive or active control, and energy harvesting. Analytical, computational and experimental methodologies are developed. The group is open to new national and international collaborations
Candidate fellows must send their candidature with a short description	marco.lepidi@unige.it



**Università  
di Genova**

of their profile to the following email address	
--	--

## MSCA PF 2021 @UniGe

### Supervisor Expression of Interest

#### 4.

First Name	Simone
Last Name	Marzani
Orcid ID	0000-0002-9675-7133
Other information	<a href="https://rubrica.unige.it/personale/UkJGWVNr">https://rubrica.unige.it/personale/UkJGWVNr</a>
MSCA domain	Physics (PHY)
Research focus area	Particle Physics
Department	Department of Physic
Short description of the department/laboratory/research group	We are seeking candidates interested in high-energy particle physics. In particular, we would like to write a research proposal in the context of analysing archived electron-positron collision data from the LEP experiments. These measurements will feature modern analysis techniques, which have been developed in the context of jet substructure at the LHC. The goal of this research project is to develop and measure event shapes variables that are robust against poorly-controlled non-perturbative corrections and use them in novel extraction of the strong coupling. This project will provide a young researcher with theoretical, experimental and computational skills, offering them cross-disciplinary training, which is a much-desired feature in the high- competitive environment of academia.
Candidate fellows must send their candidature with a short description of their profile to the following email address	simone.marzani@ge.infn.it