

Matteo Nori

FELLOW

Space Economy

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Biography

Matteo Nori is an astrophysicist with extensive expertise in data science and analysis, specialized in the physical and statistical modelling of complex systems. He holds a double MSc degree from Sorbonne University (France) and Politecnico di Torino (Italy), earned in July 2015, and completed his PhD in Astrophysics at Alma Mater Studiorum University of Bologna (Italy) in March 2019.

From 2019 to 2023, Matteo Nori served as a researcher at Bologna University and as a Postdoctoral Associate at New York University Abu Dhabi (UAE). During these years, he pursued in his investigation of the physical models of Dark Matter and Dark Energy and their implications for galaxy formation and evolution through numerical means.

Matteo Nori is collaborating with the SEE Lab since February 2024. Thanks to his scientific and technical skills, he is involved both in the research efforts, in particular revolving around numerical simulations and projections of present and future satellite populations, as well as in the design, development and automatization of the data analysis of the SEEData dataset.

Teaching domains

Big & Small Data

Data Analysis Process

Descriptive Analytics

Time Series Analysis

Predictive Analytics

ARTICLES IN SCHOLARLY JOURNALS

ELGAMAL S., NORI M., MACCIÒ A. V., BALDI M., WATERVAL S.

No Catch-22 for fuzzy dark matter: testing substructure counts and core sizes via high-resolution cosmological simulations

Monthly Notices of the Royal Astronomical Society, 2024, vol.532, no. 4, pp.4050-4059

NORI M., MACCIÒ A. V., BALDI M.

Fuzzy Aquarius: evolution of a Milky-way like system in the Fuzzy Dark Matter scenario

Monthly Notices of the Royal Astronomical Society, 2023, vol.522, no. 1, pp.1451–1463

WATERVAL S., ELGAMAL S., NORI M., PASQUATO M., MACCIÒ A. V., BLANK M., DIXON K. L., KANG X., IBRAYEV T.

NIHAO – XXVIII. Collateral effects of AGN on dark matter concentration and stellar kinematics

Monthly Notices of the Royal Astronomical Society, 2022, vol.514, no. 4, pp.5307–5319

PASQUATO M., ABBAS M., TRANI A. A., NORI M., KWIECINSKI J. A., TREVISAN P., BRAGA V. F., BONO G., MACCIÒ A. V.

Sparse Identification of Variable Star Dynamics

The Astrophysical Journal Supplement, 2022, vol.930, no. 2, pp.161

GARALDI E., NORI M., BALDI M.

Dynamic zoom simulations: A fast, adaptive algorithm for simulating light-cones

Monthly Notices of the Royal Astronomical Society, 2020, vol.499, no. 2, pp.2685–2700

NORI M., BALDI M.

Scaling relations of fuzzy dark matter haloes – I. Individual systems in their cosmological environment

Monthly Notices of the Royal Astronomical Society, 2020, vol.501, no. 1, pp.1539–1556

NORI M., MURGIA R., IRŠIČ V., BALDI M., VIEL M.

Lyman α forest and non-linear structure characterization in Fuzzy Dark Matter cosmologies

Monthly Notices of the Royal Astronomical Society, 2019, vol.482, no. 3, pp.3227–3243

NORI M., BALDI M.

AX-GADGET: a new code for cosmological simulations of Fuzzy Dark Matter and Axion models

Monthly Notices of the Royal Astronomical Society, 2018, vol.478, no. 3, pp.3935–3951

NORI M., GIROLETTI M., MASSARO F., D'ABRUSCO R., PAGGI A., TOSTI G., FUNK S.

Unveiling the nature of the unidentified gamma-ray sources VI: gamma-ray blazar candidates in the WISH survey and their radio properties

The Astrophysical Journal Supplement, 2014, vol.212, no. 1, pp.1–8

MASSARO F., D'ABRUSCO R., GIROLETTI M., PAGGI A., MASETTI N., TOSTI G., NORI M., FUNK S.

Unveiling the nature of the unidentified gamma-ray sources. III. Gamma-ray blazar-like counterparts at low radio frequencies

The Astrophysical Journal Supplement, 2013, vol.207, no. 1, pp.4

PROCEEDINGS/PRESENTATIONS

ROSSI A., IACOMINO C., SAPUTO A., NORI M., COLANTONI F., VENTRE F.

Long term effects of the mitigation and remediation measures in view of the changing space activities

Second International Orbital Debris Conference (IOC II), December 4–7, 2023, Sugar Land, TX, United States of America

DI PIPPO S., IACOMINO C., ROSSI A., NORI M., SAPUTO A., VENTRE F., COLANTONI F.

Towards a Bottom-Up Approach to Space Debris Removal: On the Economic Convenience Behind Debris Mitigation Strategies

74th International Astronautical Congress – ‘Global Challenges and Opportunities: Give Space a Chance’ - 2-6 October, 2023, Baku, Azerbaijan
