



# Non-Terrestrial Networks for 6G systems (NTN6G)

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## INTRODUCTION

Today, 5G networks are being worldwide rolled out, with significant benefits to our economy and society. However, terrestrial 5G systems alone are not expected to be sufficient for the challenges that 2030+ networks will experience. In this framework, the integration of the satellite industry in the 3GPP ecosystem is now a reality thanks to Rel. 17, in which the features for 4G and 5G systems to support a non-terrestrial component are specified. Further studies are already on-going to define 5G-Advanced (up to Rel. 20) and 6G (beyond Rel. 20) specifications, in which Non-Terrestrial Networks (NTN) are globally recognised as a key enabler of a unified, rather than integrated, 3D terrestrial/non-terrestrial network infrastructure. Such architecture will combine terrestrial, air-borne, and space-borne Radio Access Networks, including both standalone nodes and mega-constellations, for the convergence of the physical, human, and digital worlds. Aiming at efficient and flexible network operations, the global architecture shall be autonomous, intelligent, self-organizing, and resilient, in which the ground, user, and space segments are expected to witness a major breakthrough in technologies and techniques.

## CALL FOR PAPERS

You are invited to submit full papers to the technical sessions of the NTN6G workshop. The submission can be either a regular scientific paper (4 to 6 pages) that will appear on IEEExplore or a presentation paper (2 pages). A Special Issue of the IEEE Journal of RFID will promote the most important results presented at the conference. Areas of interest for the NTN6G workshop include, but are not limited to:

Network architecture	Joint communication and sensing
Cognitive radios and emerging technologies	End-to-end Security paradigms
Localisation, detection, and tracking	Network orchestration and service provisioning
Standardisation and regulation	Spectrum farming
Free Space Optical communications	NTN-enabled IoT concepts
Quantum communications	Routing for dense multi-orbit space networks
Artificial Intelligence and Machine Learning	Unified air-interface
Antenna design and processing	Edge computing and caching
Propagation modelling and channel description	Horizontal/vertical handovers
6G verticals for NTN	Software-defined networking

More details for paper submission, templates, and instructions for authors are available [here](#).

## WORKSHOP CHAIRS

Alessandro Guidotti, Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT), [a.guidotti@unibo.it](mailto:a.guidotti@unibo.it)

Alessandro Vanelli-Coralli, University of Bologna

Mohamed El Jaafari, Thales Alenia Space France

Tomaso De Cola, Deutsches Zentrum für Luft- und Raumfahrt (DLR)

Konstantinos Ntontin, University of Luxembourg