

# Editorial

## Future of Radio Astronomy

The look in the universe becomes always more difficult, because the communication industry persistently nibbles the frequencies. The curiosity of human being is enormously boundless as the universe. Scientists with big listeners radio-telescopes always see deeper and deeper of the universe. Certainly what could be researched previously that cannot any more succeed in future. Therefore the radio eyes always find lesser and lesser frequencies so that these can fully observe the universe.

It is an unequal fight. There is science here and the joint economic power of the telecommunication and satellite branches there, often coupled with national security interests. Every two years in world conferences on that there are deliberations as to which frequencies might be used.

“With that the radio astronomy has definite protected bands but that is only a fraction of frequencies which we could or wanted to use very much” says Michael Kramer, Director at the Max Planck Institute für Radioastronomie. However every new commercially permitted frequency can also prevent or make impossible a protected use.



The Radio telescope Effelsberg in Eifel took up on 1<sup>st</sup> August 1972 before just 50 years, its regular measuring works.

The big world market of radiofrequencies: Who might really use where, how, which frequencies and who fixes that is the question. The covering place for the use of frequencies is the World Radio Conferences (WRC). This takes place as a rule every four years and is organized and executed by the International Telecommunication Union (ITU), a sub organization of United Nations. The Next WRC will take place from 20 November to 15 December in Dubai in the United Arab Emirates (UAE).

Now already most diverse conferences are going on worldwide in which also goes well and unwell the future communication and science.

The competent working groups within the ITU for the radio services named “ITU-R Working Party WP7D-radioastronomy”. It is within the ITU in Sector “R” for the radio services transferred and occupied with the “Radioastronomyservice”. From Germany side by side of the Federal Network Agency among others the MPIfR is represented through Benjamin Winkel, the then Chief for the Spectrum Management. The WP7D must develop criteria for adapted protection (security) radio astronomical observations.

The activities of the communication branches endanger science.

**Source:** VDI nachrichten FOKUS: Zukunft der Radioastronomie 12 August 2022 Nr 16, Seite 1, 20, 21 von Rainer Bücken und Stephan W. Eder

Anil Kumar Ghosh<sup>†</sup>

<sup>†</sup>ORCID: Anil Kumar Ghosh: <http://orcid.org/0000-0002-8833-8676>