## High-performance Signal and Data Processing: Challenges in Astro- and Particle Physics and Radio Astronomy Instrumentation



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## Imaging the radio sky

Our knowledge of the Universe is almost entirely based on electromagnetic waves arriving from distant sources, such as stars, galaxies, quasars, etc. Most of the electromagnetic radiation is shielded by the atmosphere of the earth. Only visible light ( $\lambda \approx 10^{-7}$  m) and radio waves ( $\lambda \approx 1$ m) arrive at sea level. This is why only optical and radio telescopes are used for ground-based observations, other wavebands require satellite missions. In my presentation I will review basic differences between optical and radio imaging and discuss the resulting data processing

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