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Space for physicists

Within its Space Systems division, Airbus Defence and Space (ADS) offers numerous paths for physicists motivated to embrace a career in space: system architecture of various optical instruments as well as expert role in many domains such as optics, measurements, photodetection and laser physics. After a brief introduction of the ADS organisation, several of the current optical instruments in development will be shortly presented: the current ADS space flagship Laser Interferometer Space Antenna (LISA, Fig. 1) intended for low-frequency gravitational wave interferometric detection; EUCLID, the dark matter and energy investigation instrument; multipurpose space observatories such as GAIA and also NIRSpec, instrument of the recently launched James Webb Space Telescope; and Earth observation instruments. A glimpse of the future in space will be given with the emerging field of space-borne quantum technologies, including the exploitation of microcombs for hyperspectral observation calibration in collaboration with the Microcomb Network [1]. With this overview, ADS hopes to convince young talents of this network that there is plenty of space for physicists!

References

- [1] Rivière et al, Proc. SPIE. 11852, International Conference on Space Optics — ICSO 2020 (2021) 1185265

Figures (with caption)

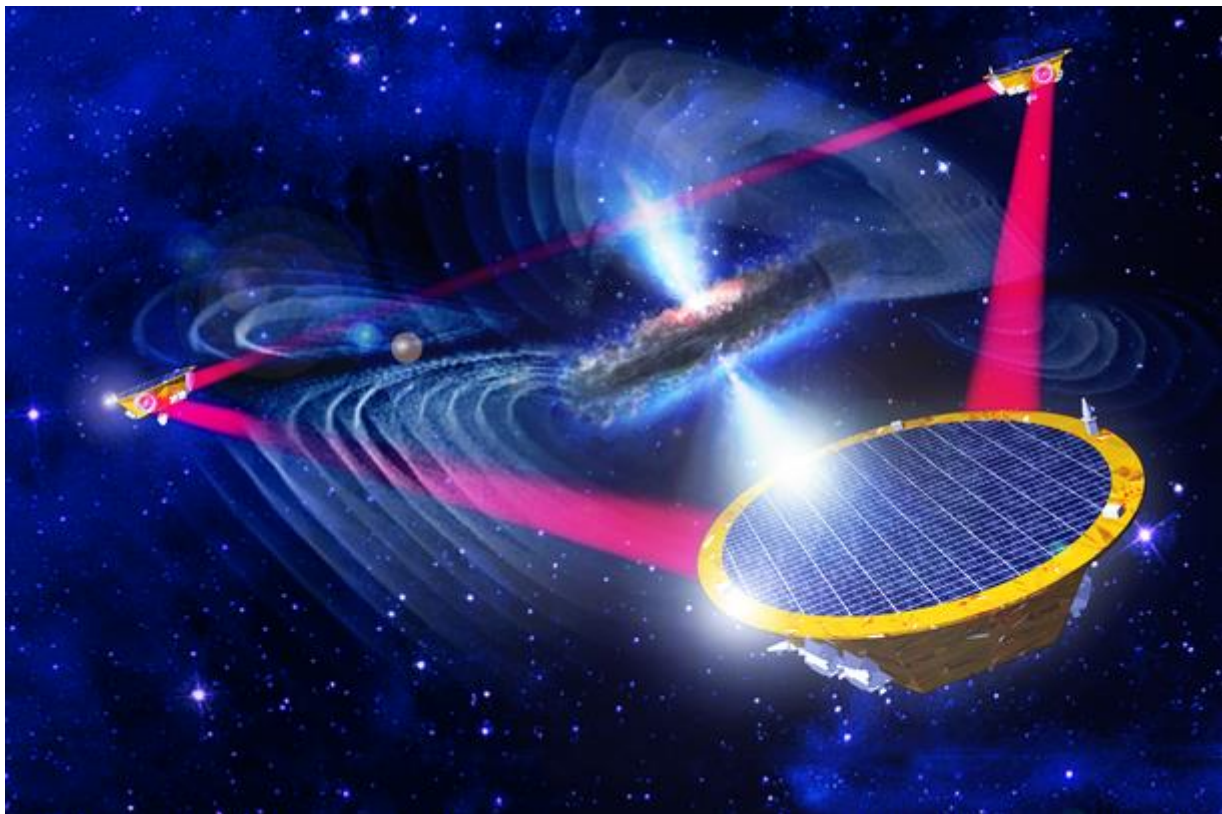


Fig. 1: Artist view of LISA, preliminary design by Airbus Defence and Space.