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## Support letter for KTH participation in the FACTORS mission for ISAS M-call

Scientists from KTH Royal Institute of Technology participate in the FACTORS mission proposal led by Prof. M. Hirahara submitted in response to ISAS JFY2022 A/O for competitive M-class missions in Japan. The goal of the mission is to study magnetosphere-ionosphere-thermosphere coupling using two formation-flying spacecraft equipped with a plasma package and an optical imager on each spacecraft.

KTH is interested in providing a hardware contribution to the science payload, particularly contributing to the Electric field and Plasma Wave Investigation (EPWI) led by Prof. H. Kojima. The KTH contributions have been discussed with Prof. H. Kojima and Prof. M. Hirahara, it will be a continuation of successful recent collaborations on BepiColombo and JUICE missions. Dr. Nickolay Ivchenko from the Division of Space and Plasma Physics (SPP) at the School of Electrical Engineering and Computer Science (EECS) will coordinate the efforts on the KTH side.

With this letter, KTH expresses its support for the project. The mission fits well into the research strategy of the SPP division and the SPP division would take an active part in all phases of the mission. The work will be carried out at the existing premises of the SPP division. It has its own space electronics laboratory and has access to other facilities at KTH such as a shock table, thermal vacuum chamber, etc.

Sincerely,

Prof. Hans Edin

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School for Electrical Engineering and Computer Science  
KTH Royal Institute of Technology