

# 太陽地球系現象の南北両極共役観測ネットワーク

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## Interhemispheric Polar Conjugate Observation Network for Solar-Terrestrial Phenomena

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Source regions of auroral and other solar-terrestrial phenomena are mainly located in the “Geospace” around the earth, including the magnetosphere and interplanetary space. Those phenomena are observed simultaneously in both polar regions and their appearance is closely related with the condition of the whole hemispheres. Hence, it is essentially important to study those phenomena with such a global point of view. At present, various international ground-based observation networks are developed in both polar regions, such as the SuperDARN radar network, magnetometer network, GNSS-TEC observation network, and auroral optical observation network. In our presentation, current status and future plan (especially during the coming phase IX of the Japanese Antarctic Research project (2016-2021)) of the ground-based network observations carried out by the Space and Upper Atmospheric Sciences group of the National Institute of Polar Research will be shown.

オーロラに代表される太陽地球系現象は、そのほとんどの生成域が地球を取り巻く宇宙空間（磁気圏、惑星間空間などを含めたジオスペース）にあり、南北の両極に同時に現れ、その出現が全球に影響を与える、または、全球の状態がその出現に影響を与えることになり、そうした全球を視野に入れた研究が本質的に重要となる。現在南北両極域には、SuperDARN 大型短波レーダーネットワーク、地磁気観測ネットワーク、GNSS-TEC 観測ネットワーク、オーロラ光学観測ネットワークなど、様々な地上観測ネットワークが国際的に展開されている。本講演では、極地研の宙空間研究グループが進めている南極域、北極域における地上ネットワーク観測の現状と、第IX期南極地域観測事業期間（2016年度～2021年度）に計画している新たな観測計画の紹介を行う。

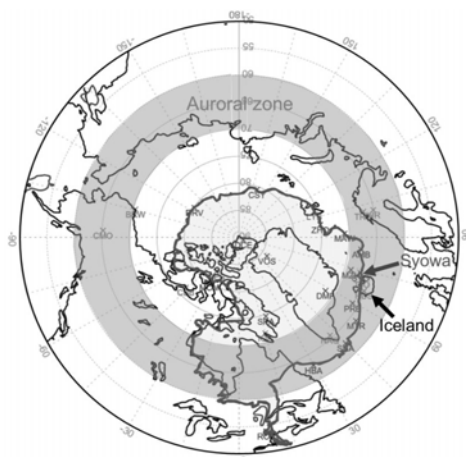


Figure 1. Overlapped plot of the southern and northern hemisphere maps in the geomagnetic coordinates

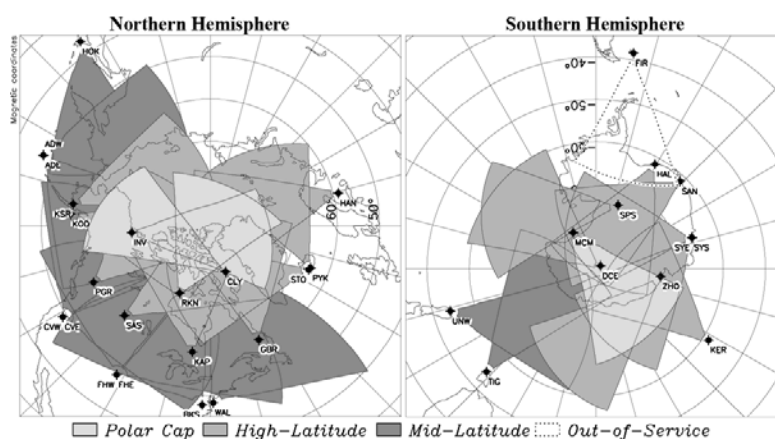


Figure 2. Field of views of the SuperDARN radars in the northern (right) and southern (left) hemispheres in the magnetic coordinates.