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SEVAN particle detector network for Solar, Atmospheric physics, and Space Weather research

The SEVAN network (Space Environment Viewing and Analysis Network), as part of the United Nations Basic Space Science (UNBSS) activities, was supported

by the International Heliophysical Year 2007 and the U Office for Outer Space Affairs. CD experts developed a new class of hybrid particle detectors capable

of measuring both neutral and charged particles. The network's initial rollout included installations in Croatia, Bulgaria, and India. Expansion continued with

the installation of SEVAN detectors in Slovakia, Germany (Hamburg and Berlin), the Czech Republic, and atop Zugspitze, Germany's highest peak, in 2023.

Local SEVAN groups foster a community for research in solar physics and high-energy atmospheric physics by analyzing neutrons and muons modulated

during solar violent events and recording increased fluxes of electrons and gamma rays during thunderstorms, RREA/TE events.

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