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GEOMAGNETIC PULSATIONS AT HIGH LATITUDES: THE ITALIAN CONTRIBUTION

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Geomagnetic pulsations represent an interesting aspect of the interaction between the solar wind and the Earth's magnetosphere. This interaction can be usefully investigated at high latitudes where the solar wind energy transmission occurs and, in particular, several generation mechanisms of pulsations are present. Since the eighties, the Italian scientific community developed a research activity in Antarctica at Mario Zucchelli Station (TNB, CGM latitude 80°S) where magnetic facilities are continuously operating. More recently, geomagnetic pulsation measurements are also recorded by means of a search-coil magnetometer, at the new station Dome C, very close to the geomagnetic pole (CGM latitude 89°S). In this review we present the experimental results obtained by a number of investigations conducted in the last years in the Pc3-5 range, also including a comparison with measurements taken at other Antarctic stations and also with low latitude observations.