

Shared knowledge

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Volcano Sarychev view from international space station June, 12 2009 credit : NASA/ Ciel et Espace

The technological challenges of physicists stimulate both researchers and industrialists. Hence, other uses are found for the equipment and the experiments conducted for this quest: some enable us to explore the inside volcanoes or the human body, to study the Earth's crust, to monitor the atmosphere and the oceans!

Edelweiss bolometer credit: CEA/IRFU/ASPERA.

To detect the signals induced by hypothetic WIMPs " theoretical massive particles which may constitute dark matter " the researchers of Edelweiss have developed, under the Fréjus mountain, some detectors working at a temperature near absolute zero, capable of measuring variations of a few millionth of a degree and of counting a few electrons. These underground laboratories also offer an ideal environment for weak contamination measurements. Cosmic ray detectors can in turn be used to probe the interior of volcanoes or pyramids, underwater observatories to study the deep sea environment!