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# Mineral Detectors for Neutrinos and Dark Matter

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Minerals have been used as nuclear track detectors for more than 50 years - nuclear recoils leave latent damage in the crystal structure. In the past years, there has been much interest in fundamental physics applications for such detectors, not least because of advances in microscopy techniques that have revolutionized our abilities to image defects at the nm scale. In this talk, I will discuss a range of proposed applications of mineral detectors, in particular "paleo-detector" searches for Dark Matter and astrophysical neutrinos: Leveraging the 100 Myr - 1 Gyr exposure times natural minerals on Earth provide, one could not only measure such sources of nuclear recoils with unprecedented exposure, but also learn about their properties, for example, the distribution of Dark Matter in our Galaxy, the evolution of our Sun, or the star formation history of the Milky Way. Research groups in America, Asia, and Europe are pursuing feasibility studies of mineral detectors for neutrinos and Dark Matter, and I will also briefly report on the status and plans of these studies.

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