

## Dark matter search using synthetic diamond

*Tuesday 20 May 2025 10:30 (45 minutes)*

Natural diamond is a type of mineral that forms deep underground in the Earth over several billion years. On the other hand, synthetic diamonds can be manufactured within a few days, with precise control over the amount of impurities. The impurity content in diamond affects its physical properties; for example, it determines its characteristics as a particle detector.

In this talk, I will present the development status of synthetic diamond detectors, primarily motivated by the direct detection of dark matter.

### Do you plan to give the talk in person?

Yes

**Primary author:** UMEMOTO, Atsuhiko (KEK)

**Presenter:** UMEMOTO, Atsuhiko (KEK)