Dark matter, neutrinos and nukes.

Tuesday, 28 September, 2021

Webcast 16:00 h

Patrick Huber (Virginia Tech)

Crystal damage events such as tracks and point defects have been used to record and detect radiation for a long time and recently they have been proposed as a means for dark matter detection. Color centers can be read out optically and we propose a scheme based on selective plane illumination microscopy for sub-micron imaging of large volumes corresponding to kilogram mass detectors. This class of detectors would be passive and would operate at room temperature. I will discuss why passive detectors are attractive for security applications. They can be used to discover dark matter, measure CEvNS with reactor neutrinos, verify that no plutonium is made and that a nuclear warhead is a nuclear warhead.



Please note: This is a VIDEO COLLOQUIUM!

Meeting ID: 996 1652 8733 Meeting Password: 733220





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