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A New Scheme of Space-Based Measurement of Neutron Lifetime

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How long neutrons survive plays a key role in particle physics and cosmology. However, conflicting results with a deviation of about 9 second have been found over years in neutron lifetime measurements. Different ideas have been proposed to solve such deviations. We proposed a new scheme based on CubeSat to determine neutron lifetime. In this talk, after a short overview on the lifetime puzzle, I will show the principle of our proposed measurement, the challenges and also the progress in payload development.

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