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**Vacuum studies in the BL2 neutron lifetime experiment**[1] ALEJANDRO CEPERO, Florida International University — The neutron lifetime is a quantity that is important for the Standard Model of Particle Physics as well as Big Bang Nucleosynthesis calculations. The BL2 Experiment looks to measure the lifetime of a free neutron using the beam method, which aims to count the amount neutrons that have decayed. The data taken includes protons being captured by an electrode trap from the decayed neutrons, as well as neutrons that pass through the trap by a neutron flux monitor. The pressure inside the experiment is monitored continuously by pressure gauges on the apparatus, and fluctuations could affect the behavior of the trapped protons. The pressure data will be presented and plans for future analyses discussed.

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