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Dark Matter searches with WISPLC experiment

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WISPLC is a direct Dark Matter detection experiment located in Hamburg, Germany, looking for Weak-interacting sub-eV particles in a previously unexplored parameter space between 10-11 and 10-6 eV, using the lumped element technique. This consists of a pickup loop capturing the induced flux of converted axion-like particles in the presence of an externally applied magnetic field with the signal being then amplified by an LC circuit. The preliminary data-taking results in the frequency range between 1 and 9 MHz with the first broadband prototype will be presented. We will also discuss the prospects for future improvements to the experiment and the next stages where the resonant scheme will be employed.

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