The PADME experiment at LNF

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Photon-like particles are predicted in many extensions of the Standard Model. They have interactions similar to the photon, are vector bosons, and can be produced together with photons. The PADME experiment proposes a search for such particles in the $e^+e^- \rightarrow gU$ process in a positron-on-target experiment, exploiting the positron beam of the DAFNE linac at the Laboratori Nazionali di Frascati, INFN. In one year of running a sensitivity in the relative interaction strength down to 10^{-6} is achievable, in the mass region from 2.5 MeV < M_U < 20 MeV. The proposed experimental setup and the analysis technique is discussed.