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**Study of SiPM potential for Cherenkov imaging applications** LUCA BARION, MARCO CONTALBRIGO, INFN - Ferrara, DRICH GROUP TEAM — SiPM base on a robust and cost-effective technology with single-photon counting capability. Their use in ring-imaging Cherenkov (RICH) detectors for Nuclear Physics has so far been disregard due to the high dark count rate and the limited radiation tolerance. However, their fast-evolving development and insensitivity to magnetic fields anticipate possible applications in the near future, in conjunction with a dedicated readout and temperature treatment. This work reports on the study of the SiPM photon detection options for innovative RICH detectors, the hybrid-optic RICH at CLAS12 and the dual-radiatior RICH at EIC.

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