

15th Pisa Meeting on Advanced Detectors - La Biodola, Isola d'Elba (Italy), 22-28 May 2022

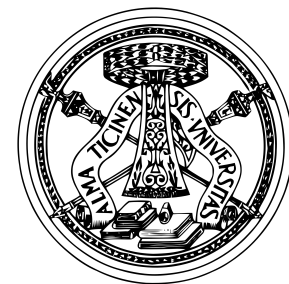
Comparison of new SiPM models for applications in High-Energy physics

M. Bonesini¹, A. Menegolli^{2,3}, M.C. Prata³, G.L. Raselli³, M. Rossella³, R. Rossini^{2,3}

¹Istituto Nazionale di Fisica Nucleare, Sezione di Milano Bicocca (Italy)

²Università degli Studi di Pavia (Italy),

³Istituto Nazionale di Fisica Nucleare, Sezione di Pavia (Italy)



Silicon Photo-Multipliers (SiPMs) are widely used as light detectors for the new generation of experiments dedicated to high energy physics. For these reasons, we tested several recent devices from different manufacturers: Hamamatsu 13360-1350; Ketek PM1125; ONsemiconductors FC10035 and AdvanSid NUV4S-P. Particular emphasis has been put on measurements of dark counts and gain, performed at different temperatures by means of a climatic chamber (F.lli Galli model Genviro-030LC) with a temperature range from $-60\text{ }^{\circ}\text{C}$ to $+60\text{ }^{\circ}\text{C}$, housing the SiPM under test. This latter also allowed evaluating the temperature coefficient of all models.

