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Overview of the simulation in KM3NeT

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28/09/2016

Generation

genhen

For neutrinos

mupage

For muons

CORSIKA

Neutrinos + muons

Produce the events, propagate them through the Earth and generate interactions near the detector

Light propagation and detection

km3, KM3SiM, JSirene

Produce light from particles near the detector, propagate it through the water, and simulate hits on PMTs

Background light

Modk40, JTrigger Efficiency

Simulate the K40 and bioluminescent background, and generate hits on PMTs

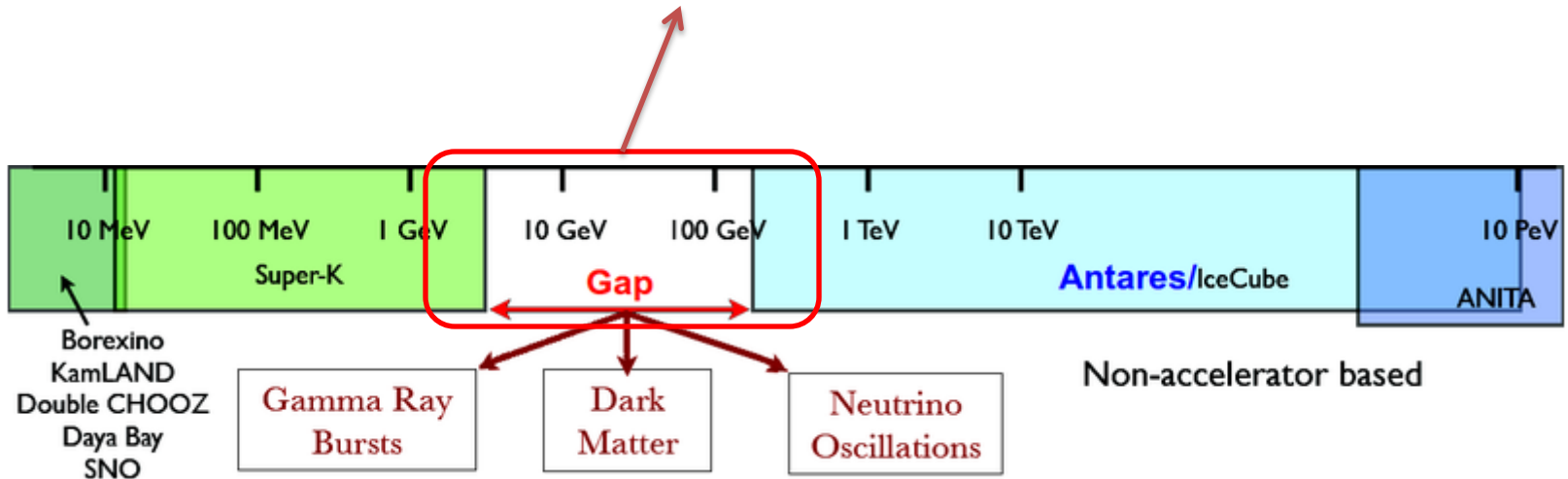
PMT simulation and triggering

SeaTray, JTrigger Efficiency

Simulate the combined response of PMTs to photon hits, and apply a trigger

Neutrino production for ORCA

Energy range of ORCA



Neutrino generator *gSeaGen*

Run scripts : `/sps/km3net/users/galata/orca/mc/scripts`

CAN dimensions	Number of energy bins	Energy range
Radius = 150 m Height = 200 m	20	1 - 100 GeV

Interaction type	Number of generated neutrinos
elecCC	5 e4
elecNC	1 e5
muonCC	5 e6
muonNC	1 e5
tauCC	5 e6