

SN@LNGS-2022: INFN Workshop on Supernova Neutrino Detection

Tuesday, October 18, 2022 - Wednesday, October 19, 2022

LNGS

Book of Abstracts

Contents

Workshop introduction	1
Welcome from the LNGS director	1
DarkSide-20k sensitivity	1
Xenon-nT and Darwin sensitivity	1
Legacy from LVD	1
Theory I	1
Theory II	1
New proposals	1
SNEWS	2
Reports from Kamioka, SNOLAB, SURF	2
SN modelling and neutrinos	2
Legacy from Borexino	2
SN neutrino phenomenology	2
SN @SuperK	2
SN @ ICECUBE	2
SNEWS	2
SN @ Cuore and Cupid	3
SN @ JUNO	3
SN neutrino signal in different detectors	3
SN@DUNE	3
SN at SNO+	3
LZ sensitivity	3
Observation of a neutron star at SN1987A location	3

Invited talk session / 1

Workshop introduction

Invited talk session / 2

Welcome from the LNGS director

Corresponding Author: ezio.previtali@mib.infn.it

Invited talk session / 3

DarkSide-20k sensitivity

Corresponding Author: dfranco@in2p3.fr

Invited talk session / 4

Xenon-nT and Darwin sensitivity

Invited talk session / 5

Legacy from LVD

Invited talk session / 6

Theory I

Invited talk session / 7

Theory II

Invited talk session / 8

New proposals

Invited talk session / 9

SNEWS

Invited talk session / 10

Reports from Kamioka, SNOLAB, SURF

Invited talk session / 11

SN modelling and neutrinos

Corresponding Author: thj@mpa-garching.mpg.de

Invited talk session / 12

Legacy from Borexino

Invited talk session / 13

SN neutrino phenomenology

Corresponding Author: capozzi@mpp.mpg.de

Invited talk session / 14

SN @SuperK

Invited talk session / 15

SN @ ICECUBE

Invited talk session / 16

SNEWS

Invited talk session / 17

SN @ Cuore and Cupid

Invited talk session / 18

SN @ JUNO

Invited talk session / 19

SN neutrino signal in different detectors

Corresponding Author: andrea.gallorosso@lngs.infn.it

Invited talk session / 20

SN@DUNE

Invited talk session / 21

SN at SNO+

Invited talk session / 23

LZ sensitivity

Invited talk session / 24

Observation of a neutron star at SN1987A location

Invited talk session / 26

HyperK sensitivity