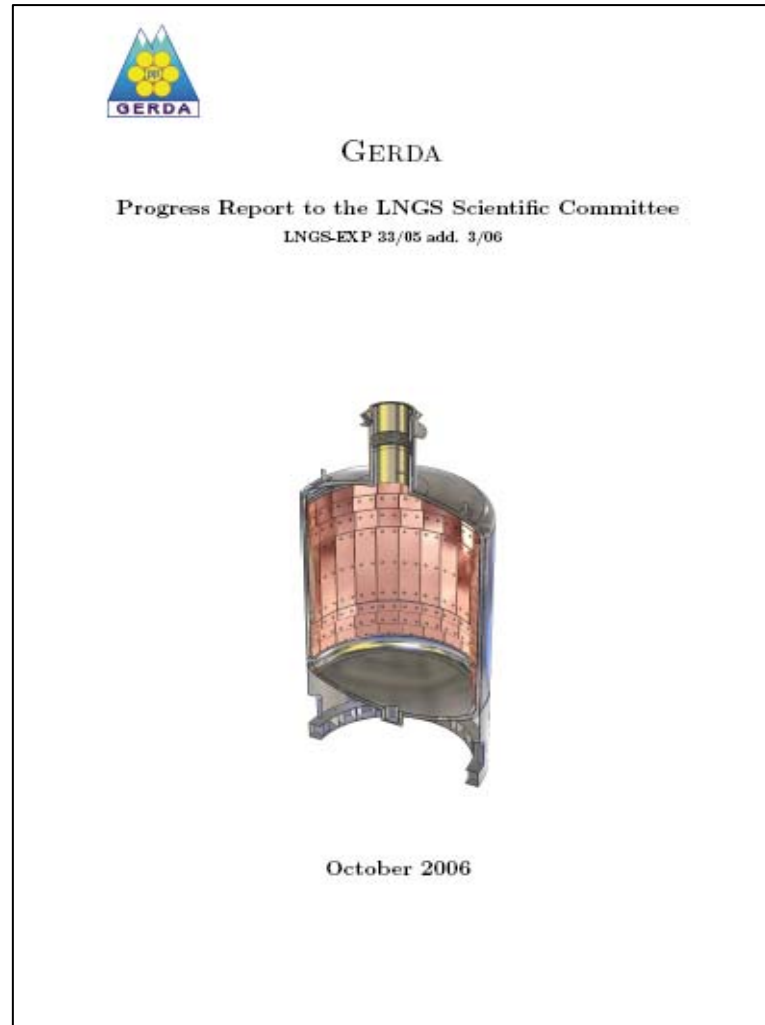


# News & Challenges

Stefan Schönert

GERDA general meeting  
Nov. 13-15, 2006,  
Univ. La Bicocca, Milano

# LNGS SC, Oct.19-20



- Excellent progress during last 6 months
- Shift to fall-back cryostat solution carried out in short time successfully
- No compromise on physics performance
- ...but "Honeymoon is over"
- Questions & discussion:
  - Time schedule
  - Phase II crystals

# LNGS SC, Oct.19-20

- Earlier LNGS SC meetings: no schedule given as crucial info on cryogenic tank and LNGS safety was missing
- After receiving of cryo-tank bids & approval of design by LNGS in September ⇒ This LNGS SC meeting: schedule for Hall A installations presented. Completion summer 2008
- Schedule of full project requested, e.g.
  - detailed plan for detector testing in LArGe
  - phase II detector development
  - other sub-projects (FE, DAQ, etc.)

# Challenges

- GERDA construction has started
  - Hall A concrete basement completed
  - Contracts for WT and Cryotank signed
  - Tender for Gerda building out in Dec.
- Goal of Milano meeting: make progress in schedule & detector integration
  - ⇒ Understand schedule of sub-projects
  - ⇒ Identify interface problems & resolve them if possible at this meeting
  - ⇒ Converge to final schedule
  - ⇒ Common understanding that GERDA should **produce relevant physics results at earliest possible time.**

# ILIAS-next

- Continue positive experience of ILIAS
  - ILIAS-next (I3) centered around European underground laboratories “low energy astroparticle physics”
  - Eligible to receive funding: EU members (Russian colleagues through TARI only)
  - Networks: driven by physics goals
  - Joint Research Activities: driven by technology
- ⇒ <http://ilias.in2p3.fr>

5. The ILIAS-next structure is as follows:

# ILIAS-next

## 1 TA:

A1 Access to underground labs on the basis of reaserch projects approved by a panel

## 7 NETWORKS:

N1 Coordination and Management of ILIAS-next

N2 Coordination of underground laboratories

N3 Multi-messenger investigation of the Universe

N4 Coordination of Gravitational Waves searches

N5 Coordination of Dark Matter searches

N6 Coordination of experiments aiming at the determination of the neutrino mass scale (Double and Single Beta Decay)

N7 Coordination of theoretical aspects of underground and astroparticle physics

## 5 JOINT RESEARCH ACTIVITIES

JRA1 *Underground ultra-low background techniques*

Screening and data base of ultrapure materials and available detector systems, innovative ultra-low level diagnostic, design of ultimate underground lab

JRA2 *Advanced techniques for rare event detection*

Low temperature detectors with double read-out, noble liquid and gas detectors, advanced semiconductor detectors, scintillators for rare event search

JRA3 *Support technologies for underground operation*

Cryogenic infrastructures, innovative readout electronics and data acquisition, shielding construction technologies, pure isotopes, pure sources and targets for rare event detection

JRA4 *High energy and nuclear physics support experiments*

Experiments with high energy muons to study muon-induced neutron background, activation tests, esperiments to improve the knowledge of Double Beta Decay nuclear matrix elements

JRA5 *Supplementary information from existing experiments and simulations*

Simulation / analysis activity for existing and future high-sensitivity experiments, analysis of data from existing detectors and associated simulations, development of simulation tools

# ILIAS-next

- Timeline:
  - First proposal draft ready early 2007
  - Call for I3 proposals expected: end 2007 or early 2008
  - Total budget for ILIAS-next expected: ~ 20 ME for 5 years
- ILIAS-next coordinator: Andrea Giuliani
  - Member of writing committee: M. Laubenstein (JRA1), S. Schoenert (JRA2), L. Pandola (JRA5)
- GERDA members involved at various JRA's / NW
- Proposal: Form GERDA internal ILIAS-next working group to prepare and review proposal drafting
  - LNGS: M. Laubenstein, L. Pandola
  - Milano: ?
  - MPI Munich: ?
  - Tuebingen: P. Grabmayer
  - MPI: S. Schoenert, H. Simgen, G. Zuzel, ?
  - Others?

# People

- MPIK: new division for “Particle and Astroparticle Physics: neutrinos, DM & beyond”



Manfred Lindner

Herr Auge

- Support of GERDA at MPIK now by two divisions