

# Status of the Technical Design Report (TDR) for SAND in the ND complex

Paolo Bernardini

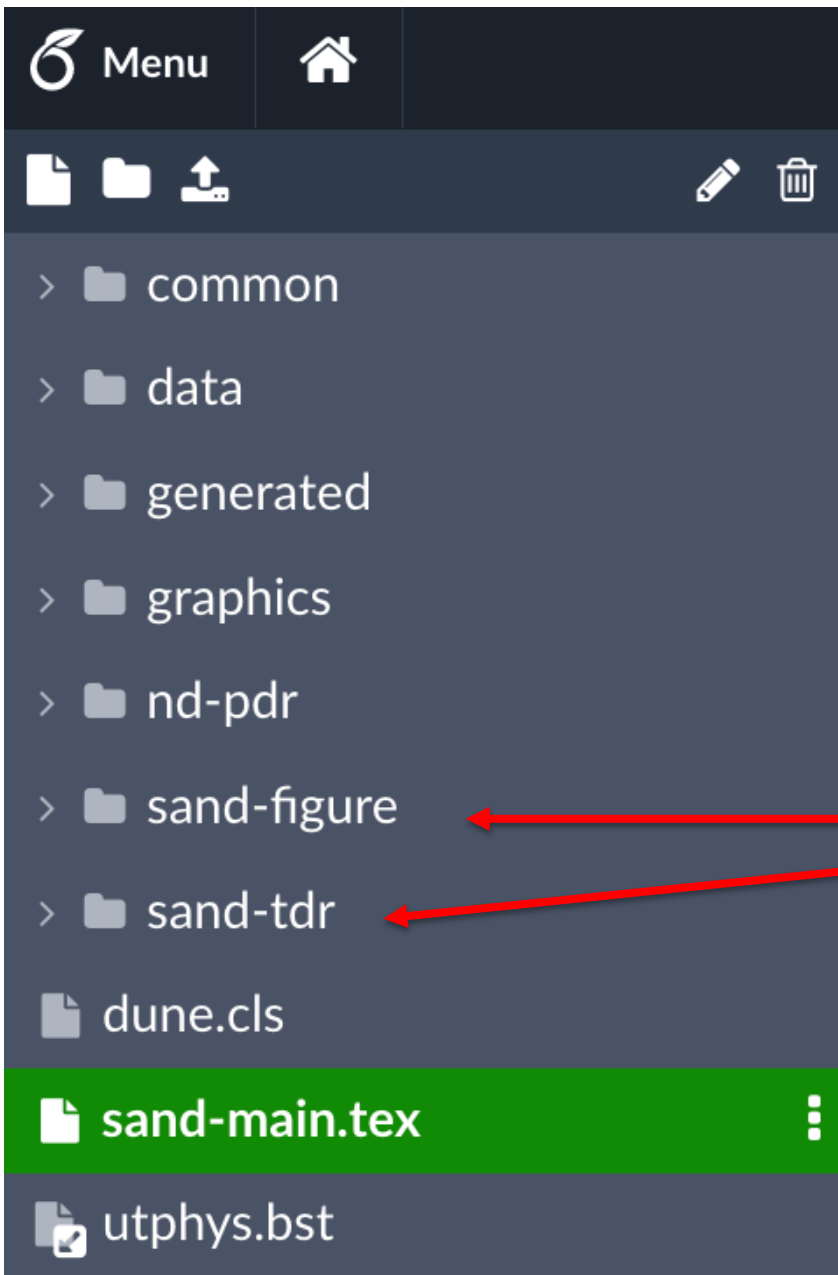
SAND meeting

June 11, 2024



UNIVERSITÀ  
DEL SALENTO  
*L'Ateneo tra i due mari*

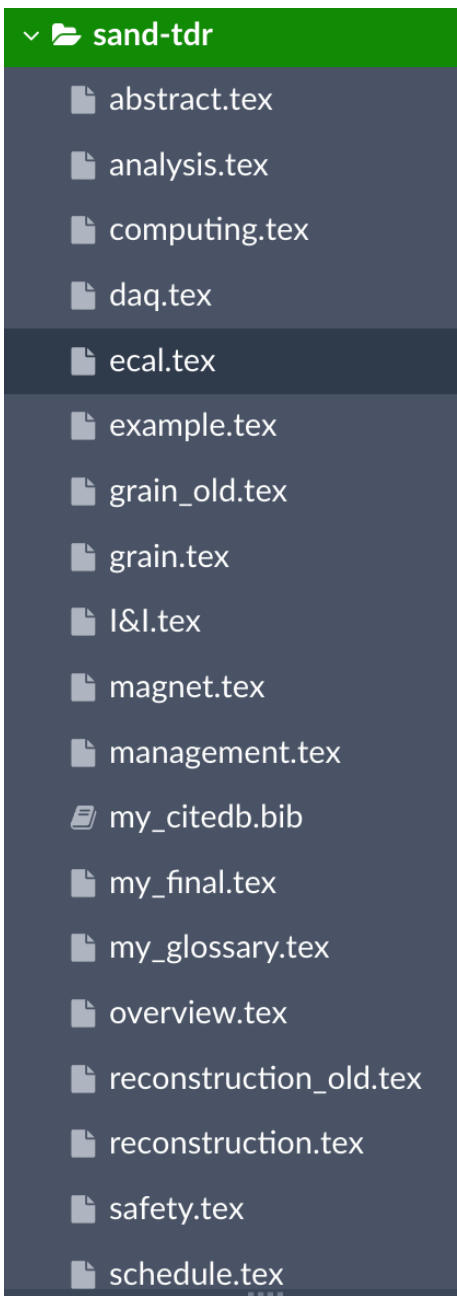




An overleaf is adopted according to  
LATEX conventions for LBNF/DUNE documents  
(shared with H.A. Tanaka and A.E. Heavey)

The figures in **sand-figure** and the files in **sand-tdr**  
are input for **sand-main.tex**

Very simple to transfer text and figures  
in the ND-TDR

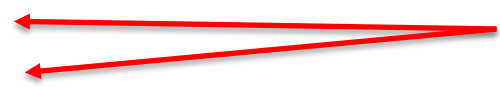


# Sections in the SAND chapter

1. Overview
2. Lead/Scintillating-Fiber Calorimeter (ECAL)
3. Superconducting Magnet
4. Liquid Argon Active Target (GRAIN)
5. Tracker
6. Data Acquisition (DAQ) Architecture
7. Detector Control (DCS)
8. Detector Safety System (DSS)
9. Software & Computing
10. Event Reconstruction
11. Analysis
12. Installation & Integration
13. Safety
14. Organization & Management
15. Time Schedule
16. Possible Upgrades

Glossary  
References

New DUNE words and new references  
in evidence (at the file end)



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## Plan

1. At least 2 authors for each section *done*
2. Index & key words for each section *done*
3. Data collection & write-up *in progress*
4. Internal reading & correction *to be organized*

## Sections in the SAND chapter

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Present status : **more than 120 pages**

- corrections & many references must be implemented
- Overview section to be updated

The write-up is not homogeneously distributed

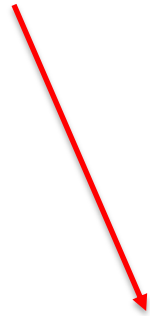
**RED** = sections with more write-up

**An increase of the write-up rate  
is expected in order to be ready  
within the deadlines**

**Dedicated meeting  
tomorrow**

## July 2024 dead lines

Comm. Scient. I      SAND (ECAL+GRAIN+tracker)  
DUNE/FNAL      ECAL+magnet



### Expected Materials/Documents:

- Preliminary design report sections describing KLOE magnet and calorimeter, including any modifications, refurbishments, upgrades, and major auxiliary tooling/infrastructure.
- Schedule
- Any permitting needed
- Org charts, agreements relevant to defining roles, scope, and responsibilities

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**SAND chapter**  
**(yesterday updated)**

