

# R3BRoot Status

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# News since last workshop

## July 2015

# 1. Code infrastructure

# Repository has been moved to git

<https://github.com/R3BRootGroup/R3BRoot>

Talk “Supplementary Tools” today at 10:10

Session “Exercises with git” today at 13:00

# c++ 11 standard

Its features can be used in code

Required during cmake configuration

# ROOT 6 compatibility

R3BRoot is fully ROOT 6 compatible (keeping support for ROOT 5)

thanks to Pablo Cabanelas

Preliminary: ROOT 5 will be not distributed after migration to new build system  
(substitute for FairSoft)

# Naming convention established

<https://www.r3broot.gsi.de/naming-scheme>

Talk by Ralf Plag today at 9:50

# Extended testing

Number of automatic tests increased from 4 to 17

With this tested code coverage now 37.7% (23% before)

Talk “Supplementary Tools” today at 10:10

Session “Advanced topics” on Thursday at 14:45



# 2. Simulation

# Improvements and fixes in NeuLAND simulations

also calculations for future experiments

Jan Mayer

simulations for VETO detector

Christiaan Douma

# Garfield++ model for ACTAF

Oleg Kiselev

# CALIFA and NeuLAND demonstrators

geometry and macros are now included in R3BRoot

# Geant4 physics list

Validation of XBall simulations vs. experimental data

Paloma Díaz Fernández

Comparison of various reference physics lists for NeuLAND

Jan Mayer

# 3. Data Analysis

# Ucesb interface

Talk by Bastian Löher today at 9:10

# NeuLAND

Full support of s438b

Vadim Wagner



# jun16 experiment

LOS	complete	Ralf Plag
TOFd	almost complete	Ina Syndikus
PSPX	complete	Michael Heil

# Straw tubes analysis

Alexander Inglessi

# General time calibration engine

2 Talks on Wednesday at 13:00

Session by Ralf Plag on Wednesday at 14:00

# Online histogram analysis

Session by Michael Heil on Thursday at 13:00

# Silicon Tracker analysis

based on standalone LMD unpacker

Marc Labiche

# R3B Detectors in R3BRoot - February 2017

	LOS	PSPX	TOFd	NeuLAND	Si Tracker	CALIFA	Straw tubes
Mapped					***	***	
CAL							
HIT							

Mapped - raw data delivered from Ucesb to R3BRoot and stored

CAL - calibrated data: time [ns], charge [MeV]

HIT - physical hits, time [ns], charge [MeV], position [cm], all synchronized

\*\*\* - based on standalone LMD unpacker

# 4. Ongoing work

Fragment tracker and fitter based on Runge Kutta method

Define R3B physics list for Geant4 simulations

pTOF analysis during this workshop