

Introduction to KATRIN's Collaborative Services

Analysis Workshop at the 34. KATRIN CM



KATRIN Wiki

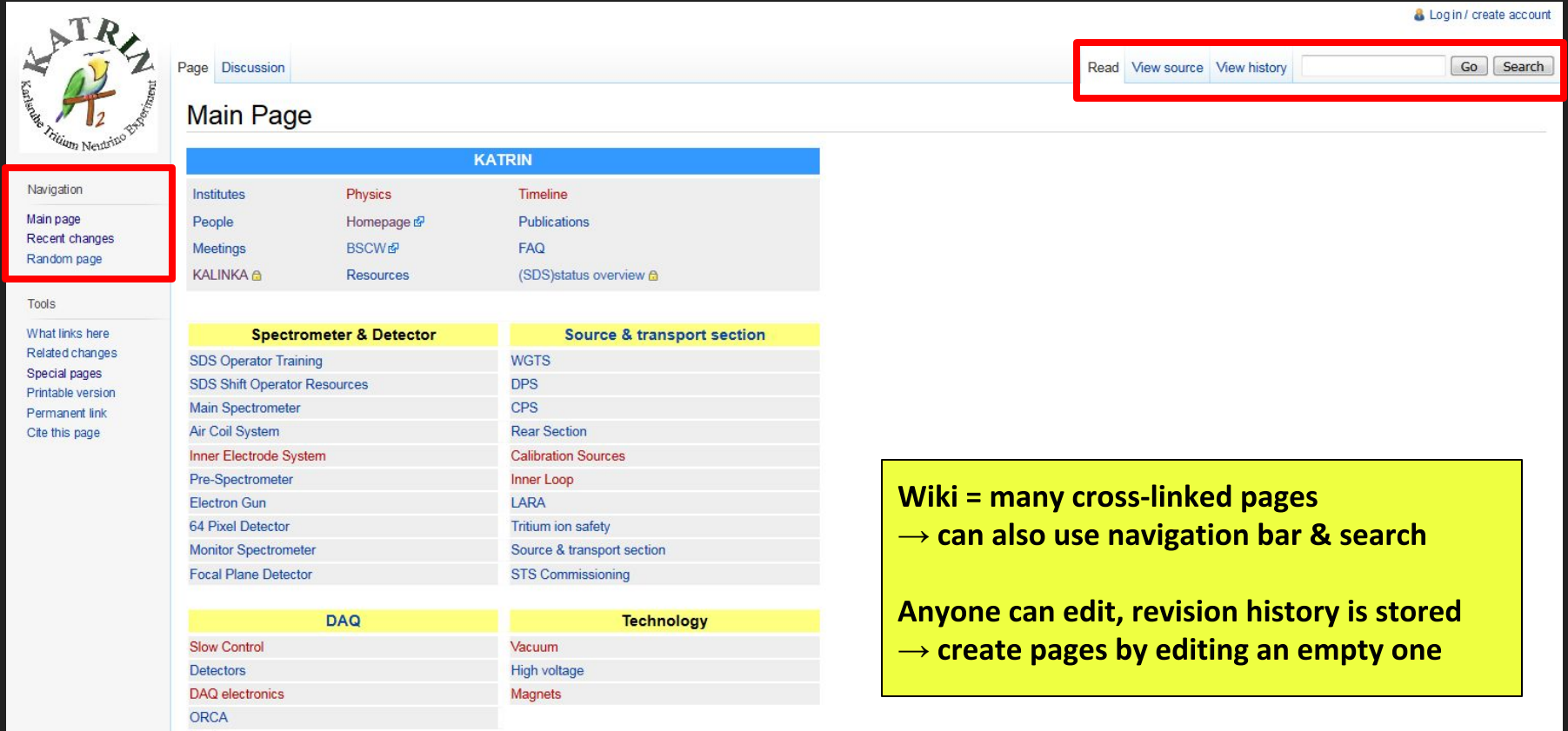



What? Web service to collaboratively create & edit Wiki pages.
Runs a MediaWiki instance, hosted at KIT.

Why? The Wiki allows us to collect & archive discussion material,
provide information for new users, organize schedules, etc.
Wiki pages can be created as needed, extra files can be uploaded.

Where? <https://neutrino.ikp.kit.edu/katrin>
<http://katrin.kit.edu/wiki>



KATRIN Wiki: Overview (1)



 Log in / create account

Page Discussion Read View source View history Go Search

Main Page

KATRIN		
Institutes	Physics	Timeline
People	Homepage ↗	Publications
Meetings	BSCW ↗	FAQ
KALINKA 	Resources	(SDS)status overview 

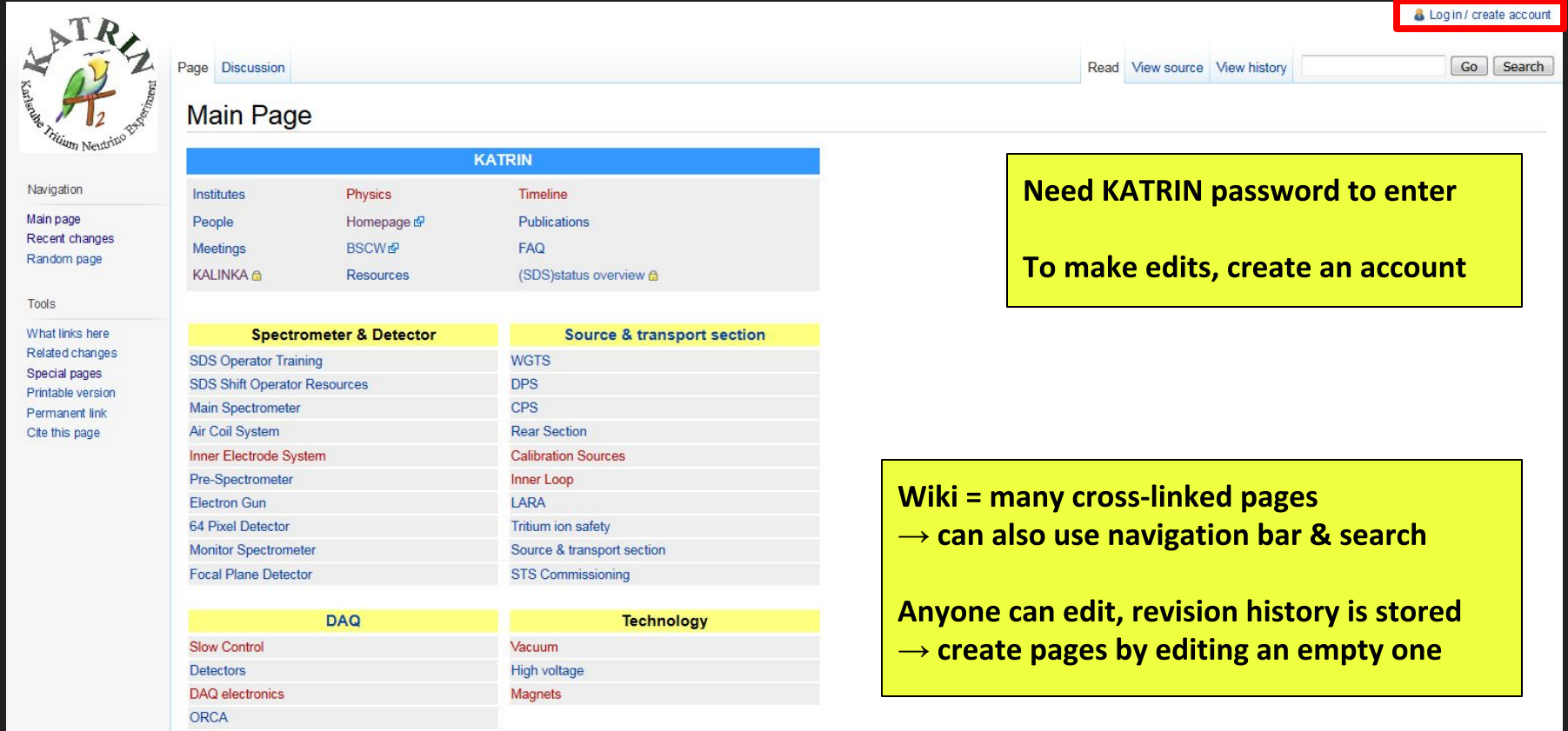
Spectrometer & Detector	Source & transport section
SDS Operator Training	WGTS
SDS Shift Operator Resources	DPS
Main Spectrometer	CPS
Air Coil System	Rear Section
Inner Electrode System	Calibration Sources
Pre-Spectrometer	Inner Loop
Electron Gun	LARA
64 Pixel Detector	Tritium ion safety
Monitor Spectrometer	Source & transport section
Focal Plane Detector	STS Commissioning

DAQ	Technology
Slow Control	Vacuum
Detectors	High voltage
DAQ electronics	Magnets
ORCA	

Wiki = many cross-linked pages
→ can also use navigation bar & search

Anyone can edit, revision history is stored
→ create pages by editing an empty one

KATRIN Wiki: Overview (2)



The screenshot shows the KATRIN Wiki main page. At the top right, there is a red-bordered button for "Log in / create account". Below it, navigation tabs for "Page" and "Discussion" are visible, along with links for "Read", "View source", and "View history". A search bar with "Go" and "Search" buttons is also present. The main content area is titled "Main Page" and features a blue header for "KATRIN". Below this, there are three columns of links: "Institutes" (Physics, Timeline), "People" (Homepage, Publications), and "Meetings" (BSCW, FAQ). A "KALINKA" link is also present. Further down, there are two columns: "Spectrometer & Detector" (listing SDS Operator Training, SDS Shift Operator Resources, Main Spectrometer, Air Coil System, Inner Electrode System, Pre-Spectrometer, Electron Gun, 64 Pixel Detector, Monitor Spectrometer, and Focal Plane Detector) and "Source & transport section" (listing WGTS, DPS, CPS, Rear Section, Calibration Sources, Inner Loop, LARA, Tritium ion safety, Source & transport section, and STS Commissioning). At the bottom, there are two more columns: "DAQ" (listing Slow Control, Detectors, DAQ electronics, and ORCA) and "Technology" (listing Vacuum, High voltage, and Magnets). On the left side, there is a navigation menu with options like "Navigation", "Main page", "Recent changes", "Random page", "Tools", "What links here", "Related changes", "Special pages", "Printable version", "Permanent link", and "Cite this page".

Log in / create account

Page Discussion

Read View source View history

Go Search

Main Page

KATRIN

Institutes	Physics	Timeline
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KALINKA	Resources	(SDS)status overview

Spectrometer & Detector	Source & transport section
SDS Operator Training	WGTS
SDS Shift Operator Resources	DPS
Main Spectrometer	CPS
Air Coil System	Rear Section
Inner Electrode System	Calibration Sources
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Electron Gun	LARA
64 Pixel Detector	Tritium ion safety
Monitor Spectrometer	Source & transport section
Focal Plane Detector	STS Commissioning

DAQ	Technology
Slow Control	Vacuum
Detectors	High voltage
DAQ electronics	Magnets
ORCA	

Navigation

Main page

Recent changes

Random page

Tools

What links here

Related changes

Special pages

Printable version

Permanent link

Cite this page

Need KATRIN password to enter

To make edits, create an account

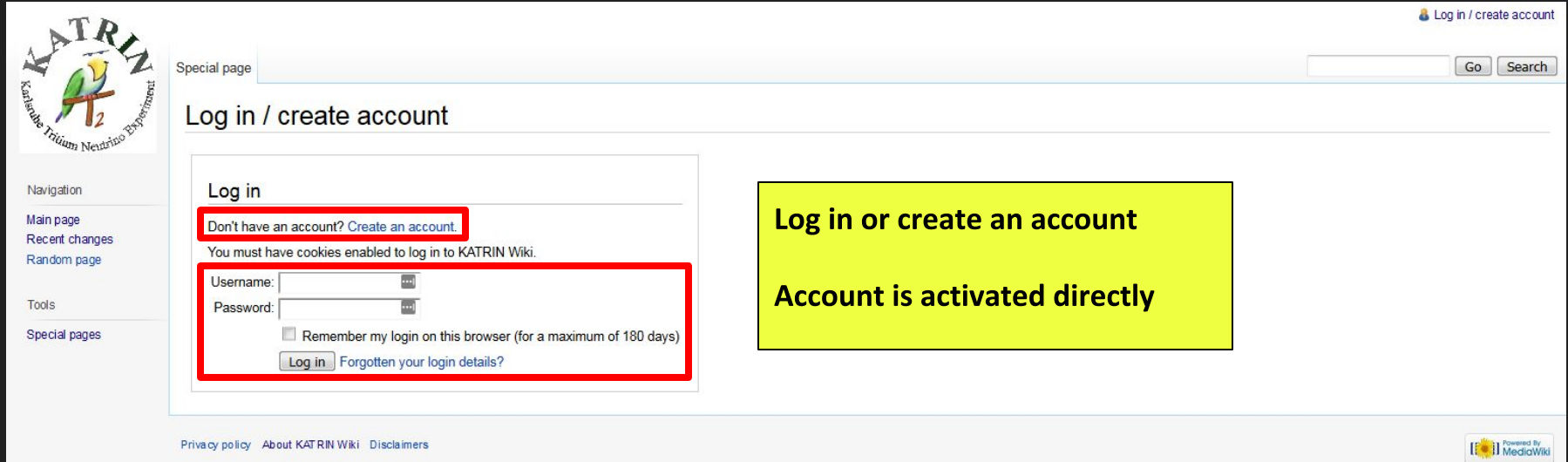
Wiki = many cross-linked pages

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→ create pages by editing an empty one

KATRIN Wiki: Accounts



Special page

[Log in / create account](#)

Log in

[Don't have an account? Create an account.](#)

You must have cookies enabled to log in to KATRIN Wiki.

Username:

Password:

Remember my login on this browser (for a maximum of 180 days)

[Forgotten your login details?](#)

Log in or create an account

Account is activated directly


Navigation

- [Main page](#)
- [Recent changes](#)
- [Random page](#)

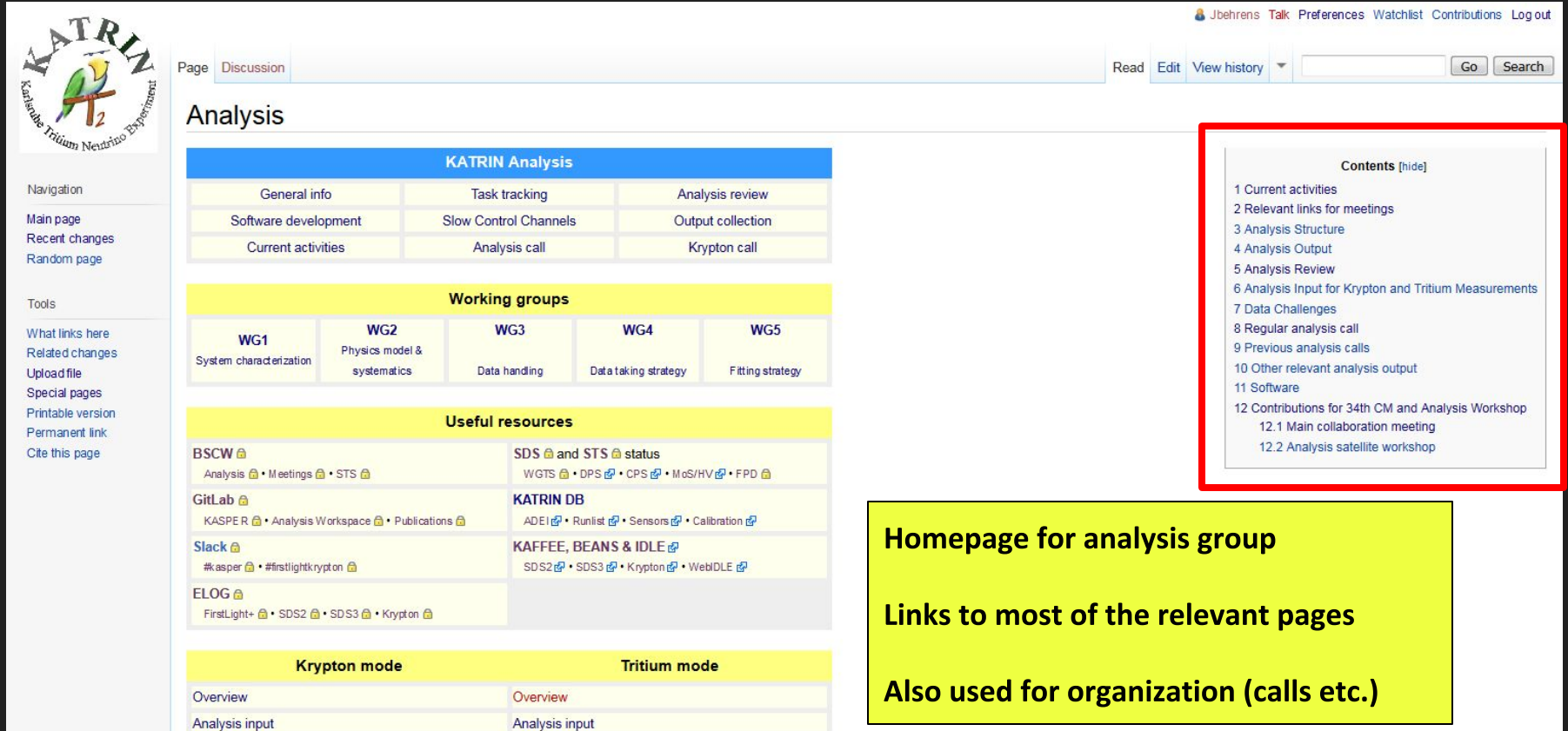
Tools

Special pages

[Privacy policy](#) [About KATRIN Wiki](#) [Disclaimers](#)

Powered by  MediaWiki

KATRIN Wiki: Getting started (1)



The screenshot shows the KATRIN Wiki homepage for the 'Analysis' section. The page is organized into several sections: 'KATRIN Analysis', 'Working groups', 'Useful resources', and 'Krypton mode'/'Tritium mode'. A red box highlights the 'Contents' table of contents on the right side of the page. A yellow box highlights the main content area, which includes the 'KATRIN Analysis' table, 'Working groups' table, 'Useful resources' section, and the 'Krypton mode'/'Tritium mode' section.

KATRIN Analysis

General info	Task tracking	Analysis review
Software development	Slow Control Channels	Output collection
Current activities	Analysis call	Krypton call

Working groups

WG1	WG2	WG3	WG4	WG5
System characterization	Physics model & systematics	Data handling	Data taking strategy	Fitting strategy

Useful resources

BSCW Analysis • Meetings • STS	SDS and STS status WGTS • DPS • CPS • MoS/HV • FPD
GitLab KASPER • Analysis Workspace • Publications	KATRIN DB ADEI • Runlist • Sensors • Calibration
Slack #kasper • #firstlightkrypton	KAFFEE, BEANS & IDLE SDS2 • SDS3 • Krypton • WebIDLE
ELOG FirstLight+ • SDS2 • SDS3 • Krypton	

Krypton mode | **Tritium mode**

Overview	Overview
Analysis input	Analysis input

Contents [hide]

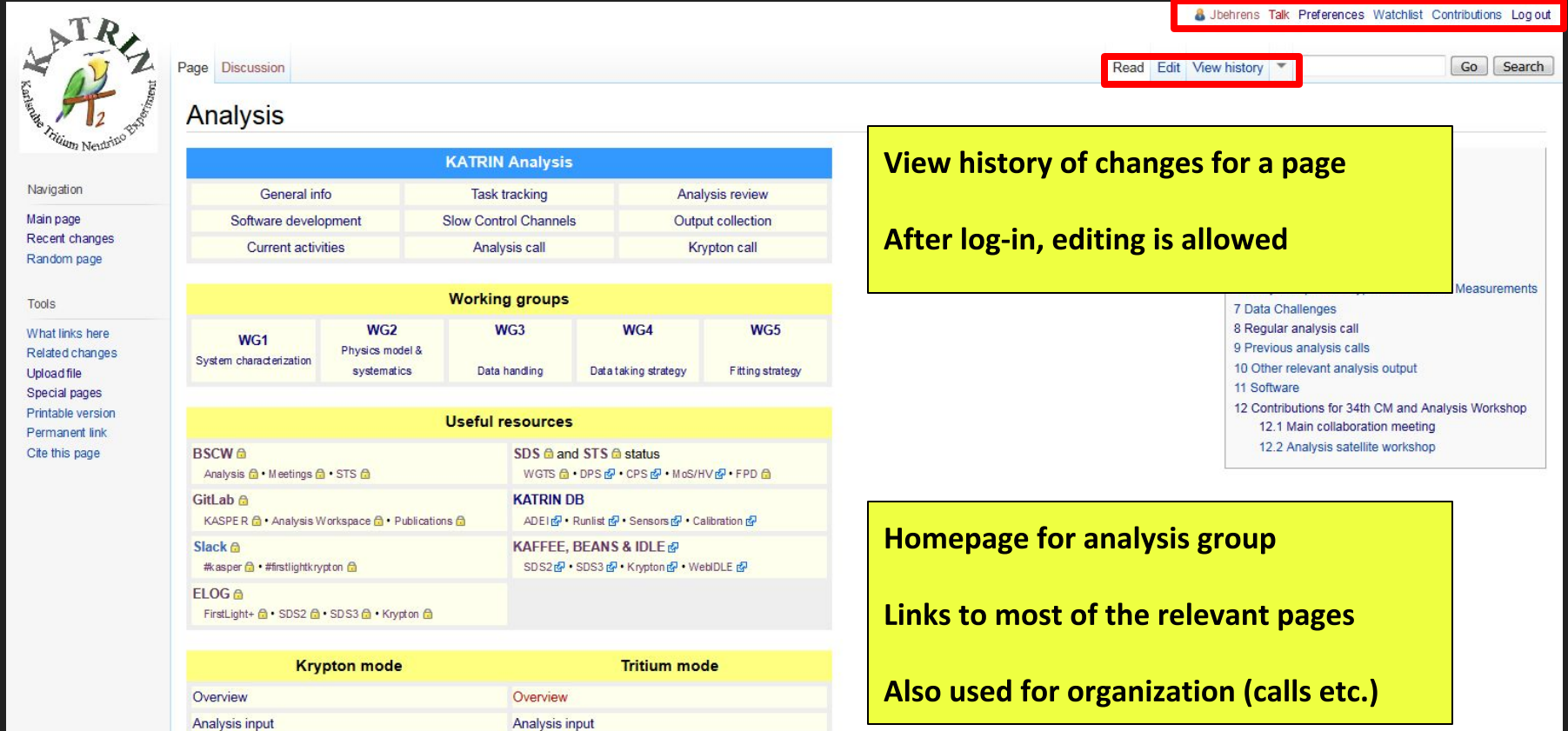
- 1 Current activities
- 2 Relevant links for meetings
- 3 Analysis Structure
- 4 Analysis Output
- 5 Analysis Review
- 6 Analysis Input for Krypton and Tritium Measurements
- 7 Data Challenges
- 8 Regular analysis call
- 9 Previous analysis calls
- 10 Other relevant analysis output
- 11 Software
- 12 Contributions for 34th CM and Analysis Workshop
 - 12.1 Main collaboration meeting
 - 12.2 Analysis satellite workshop

Homepage for analysis group

Links to most of the relevant pages

Also used for organization (calls etc.)

KATRIN Wiki: Getting started (2)



The screenshot shows the 'Analysis' page on the KATRIN Wiki. At the top right, a red box highlights the user navigation menu: 'Jbehrens Talk Preferences Watchlist Contributions Log out'. Below it, another red box highlights the 'Read Edit View history' menu. A yellow box on the right side of the page contains the text: 'View history of changes for a page' and 'After log-in, editing is allowed'. At the bottom, another yellow box contains the text: 'Homepage for analysis group', 'Links to most of the relevant pages', and 'Also used for organization (calls etc.)'. The page content includes a navigation sidebar on the left, a main content area with sections for 'KATRIN Analysis', 'Working groups', 'Useful resources', and 'Krypton mode/Tritium mode', and a 'Measurements' sidebar on the right.

KATRIN
KATRIN Tritium Neutrino Experiment

Page [Discussion](#)

[Read](#) [Edit](#) [View history](#)

Analysis

KATRIN Analysis		
General info	Task tracking	Analysis review
Software development	Slow Control Channels	Output collection
Current activities	Analysis call	Krypton call

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WG1	WG2	WG3	WG4	WG5
System characterization	Physics model & systematics	Data handling	Data taking strategy	Fitting strategy

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BSCW Analysis • Meetings • STS	SDS and STS status WGTS • DPS • CPS • MoS/HV • FPD
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ELOG FirstLight+ • SDS2 • SDS3 • Krypton	

Krypton mode	Tritium mode
Overview	Overview
Analysis input	Analysis input

Measurements

- 7 Data Challenges
- 8 Regular analysis call
- 9 Previous analysis calls
- 10 Other relevant analysis output
- 11 Software
- 12 Contributions for 34th CM and Analysis Workshop
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 - 12.2 Analysis satellite workshop

KATRIN Wiki: Revision History



Revision history of "Analysis"

Viewlogs for this page

Browse history

From year (and earlier): From month (and earlier): Deleted only

Diff selection: Mark the radio boxes of the revisions to compare and hit enter or the button at the bottom.

Legend: **(cur)** = difference with latest revision, **(prev)** = difference with preceding revision, **m** = minor edit.

([newest](#) | [oldest](#)) [View](#) ([newer 50](#) | [older 50](#)) ([20](#) | [50](#) | [100](#) | [250](#) | [500](#))

- [\(cur | prev\)](#) 17:16, February 12, 2018 [Katrin](#) ([Talk](#) | [contribs](#)) .. (+1) .. (→Regular analysis call) ([undo](#))
- [\(cur | prev\)](#) 17:16, February 12, 2018 [Katrin](#) ([Talk](#) | [contribs](#)) .. (+84) .. (→Regular analysis call) ([undo](#))
- [\(cur | prev\)](#) 17:13, February 12, 2018 [Katrin](#) ([Talk](#) | [contribs](#)) .. (+66) .. (→Regular analysis call) ([undo](#))
- [\(cur | prev\)](#) 16:04, February 12, 2018 [Machatschek](#) ([Talk](#) | [contribs](#)) .. (+80) .. (→Regular analysis call) ([undo](#))
- [\(cur | prev\)](#) 15:58, February 12, 2018 [Pablo](#) ([Talk](#) | [contribs](#)) .. (+1) .. (→Regular analysis call) ([undo](#))
- [\(cur | prev\)](#) 15:57, February 12, 2018 [Pablo](#) ([Talk](#) | [contribs](#)) .. (0) .. (→Regular analysis call) ([undo](#))
- [\(cur | prev\)](#) 15:56, February 12, 2018 [Pablo](#) ([Talk](#) | [contribs](#)) .. (0) .. (→Regular analysis call) ([undo](#))
- [\(cur | prev\)](#) 15:55, February 12, 2018 [Pablo](#) ([Talk](#) | [contribs](#)) .. (+355) .. (→Regular analysis call) ([undo](#))
- [\(cur | prev\)](#) 14:11, February 9, 2018 [Jbehrens](#) ([Talk](#) | [contribs](#)) **m** .. (-132) .. (→Current activities) ([undo](#))
- [\(cur | prev\)](#) 18:28, February 7, 2018 [141.52.12.23](#) ([Talk](#)) .. (-3) .. (→Current activities) ([undo](#))
- [\(cur | prev\)](#) 09:26, February 7, 2018 [Kvalerius](#) ([Talk](#) | [contribs](#)) .. (-2) .. (→Current activities) ([undo](#))
- [\(cur | prev\)](#) 17:30, February 6, 2018 [71.231.80.128](#) ([Talk](#)) .. (+114) .. (→Current activities) ([undo](#))
- [\(cur | prev\)](#) 15:09, February 6, 2018 [Kvalerius](#) ([Talk](#) | [contribs](#)) **m** .. (+18) .. (→Regular analysis call) ([undo](#))
- [\(cur | prev\)](#) 15:08, February 6, 2018 [Kvalerius](#) ([Talk](#) | [contribs](#)) **m** .. (-6) .. (→Regular analysis call) ([undo](#))
- [\(cur | prev\)](#) 15:08, February 6, 2018 [Kvalerius](#) ([Talk](#) | [contribs](#)) **m** .. (+112) .. (→Regular analysis call) ([undo](#))
- [\(cur | prev\)](#) 16:45, February 5, 2018 [93.44.195.96](#) ([Talk](#)) .. (-1) .. (→Main collaboration meeting) ([undo](#))

Revision history lists all edits for a page

View older revisions or changes (diff)

Undo edits if something went wrong!

KATRIN Wiki: Editing (1)

Wiki formatting help:
<https://www.mediawiki.org/wiki/Help:Formatting>



Jbehrens Talk Preferences Watchlist Contributions Log out

Page Discussion

Read Edit View history

Go Search

Editing Analysis



== Current activities ==

<!-- please do not remove the regular calls, just update the date or use <s>...</s> to strik

Follow the action of upcoming meetings here:

- * [[First_Tritium#Documents|FirstTritium call]] - '''Thursday (February 8th)''' at 8:00 am PST / 11:00 am EST / 17:00 Uhr CET
- * [[Data_handling#Meetings|WG3 call]] - '''Friday (February 9th)''' at 7:00 am PST / 10:00 am EST / 16:00 Uhr CET
- * [[The_WGTS_Krypton_Mode|Krypton call]] - '''Thursday (February 15th)''' at 8:00 am PST / 11:00 am EST / 17:00 Uhr CET
- * [[#Regular_analysis call|Analysis call]] - '''Tuesday (March 6th)''' at 8:15 am PST / 11:15 am EST / 17:15 Uhr CET (regular call every two weeks)
- * [[Physics_Model_and_Systematics#Meetings|KASPER call]] - '''Wednesday (March 7th)''' at 8:15 am PST / 11:15 am EST / 17:15 Uhr CET (regular call once a month)

<!-- please keep the empty lines as a divider -->

* Urgent tasks being tracked above the level of working groups: '''[[Analysis Task Tracking]]'''

** (Original Excel version of task list:) (items collected at the Pittsburgh Workshop): [[media:Tasks_by_33CM.xls|excel sheet]]

== Relevant links for meetings ==

- * Resources for Krypton analysis calls can be found here: '''[[The_WGTS_Krypton_Mode|Krypton Calls]]'''
- * We have a Slack group for small discussions and updates. Use the invite link to join: '''[https://join.slack.com/t/katrin-experiment/shared_invite/enQtMjgxMTYzNDIzOTg2LTlIXyY2MmNlYjliMzJmYTBMNW1N2QxYTU4OWVkb2ZmM3NTQ1YTdkYzVjZDIwMjE5ZmY0ZTAxMTFjMzI4NjdmNzZm katrin-experiment on #slack]'''
- ** Keep in mind that Slack is not the right place for detailed discussions, since we cannot track/archive the outcome in the long term. Please use the established mailing lists, phone calls or the Wiki pages for important topics.

Please note that all contributions to KATRIN Wiki may be edited, altered, or removed by other contributors. If you do not want your writing to be edited mercilessly, then do not submit it here. You are also promising us that you wrote this yourself, or copied it from a public domain or similar free resource (see [KATRIN Wiki:Copyrights](#) for details). **Do not submit copyrighted work without permission!**

Summary:

This is a minor edit Watch this page

Cancel | [Editing help](#) (opens in new window)

Syntax supposed to be “simple” (is it?)

Mostly plain text + structural elements

KATRIN Wiki: Editing (2)

Wiki formatting help:
<https://www.mediawiki.org/wiki/Help:Formatting>

KATRIN
Karlsruhe Tritium Neutrino Experiment

Page Discussion

Read Edit View history

Editing Analysis

B

```
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Summary:

This is a minor edit Watch this page

Save page Show preview Show changes Cancel | [Editing help](#) (opens in new window)

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Mostly plain text + structural elements

Use preview feature before saving!

GitLab



GitLab

What?

Web platform for hosting git repositories & related services.
Runs a GitLab CE instance, hosted in Münster.

Why?

Version control is crucial for collaborative software development.
GitLab provides a user-friendly interface with additional services.
The git system works well for paper-writing, too.

Where?

<https://nuserv.uni-muenster.de:8443>
<http://nuserv.uni-muenster.de/gitlab>

GitLab: Accounts

Need personal account to enter

Email address must be whitelisted



Welcome to the **KATRIN** GitLab web interface.

Please sign in with your personal account. New accounts can be created for selected e-mail addresses only. Please contact the site admins if you need any help.



Sign in

Register

Full name

Username

Email

Email confirmation

Password

Minimum length is 8 characters

Register

Didn't receive a confirmation email? [Request a new one.](#)

GitLab: Access

Projects ▾ **Groups** Activity Milestones Snippets

Groups

Your groups Explore public groups

Filter by name... Last created ▾

Below you will find all the groups that are public.
You can easily contribute to them by requesting to join these groups.

- DARWIN-KIT
- XENON-MS
Software projects of the MS XENON group.
- KIT
Projects related to KIT, e.g. organizational stuff or local projects.
- KATRIN Publications**
Group for collaborative writing.
How To · New project · Autobuilds
- WWU Münster
Projects related to WWU Münster, e.g. organizational stuff or local projects.
- KATRIN Software**
KATRIN projects, e.g. simulation and analysis code.

0 1 16

0 28 114

Join groups after account was activated
→ Navigation bar > “Groups”

KATRIN has two groups: Software & Publications
→ request access on the group homepage

GitLab: Projects (1)

Navigation bar: Projects (selected), Groups, Activity, Milestones, Snippets

Project list (highlighted):

- KATRIN Software / KASPER (Developer)
KASPER - The KATRIN analysis and simulation package
- Martin Slezak / Fitter (Reporter)
Fit(ness) Studio
- KATRIN Publications / magpulse (Master)
Reduction of stored-particle background by magnetic pulse at the KATRIN experiment.

Status indicators (highlighted):

- ✓ ★ 11 🔒 updated about 2 hours ago
- ★ 1 🔒 updated a day ago
- ✓ ★ 0 🔒 updated about 7 hours ago
- ✓ ★ 0 🔒 updated about 7 hours ago
- ✓ ★ 1 🔒 updated about 10 hours ago
- ✓ ★ 0 🔒 updated about 14 hours ago
- ✓ ★ 0 🔒 updated a day ago
- ✓ ★ 1 🔒 updated 2 days ago

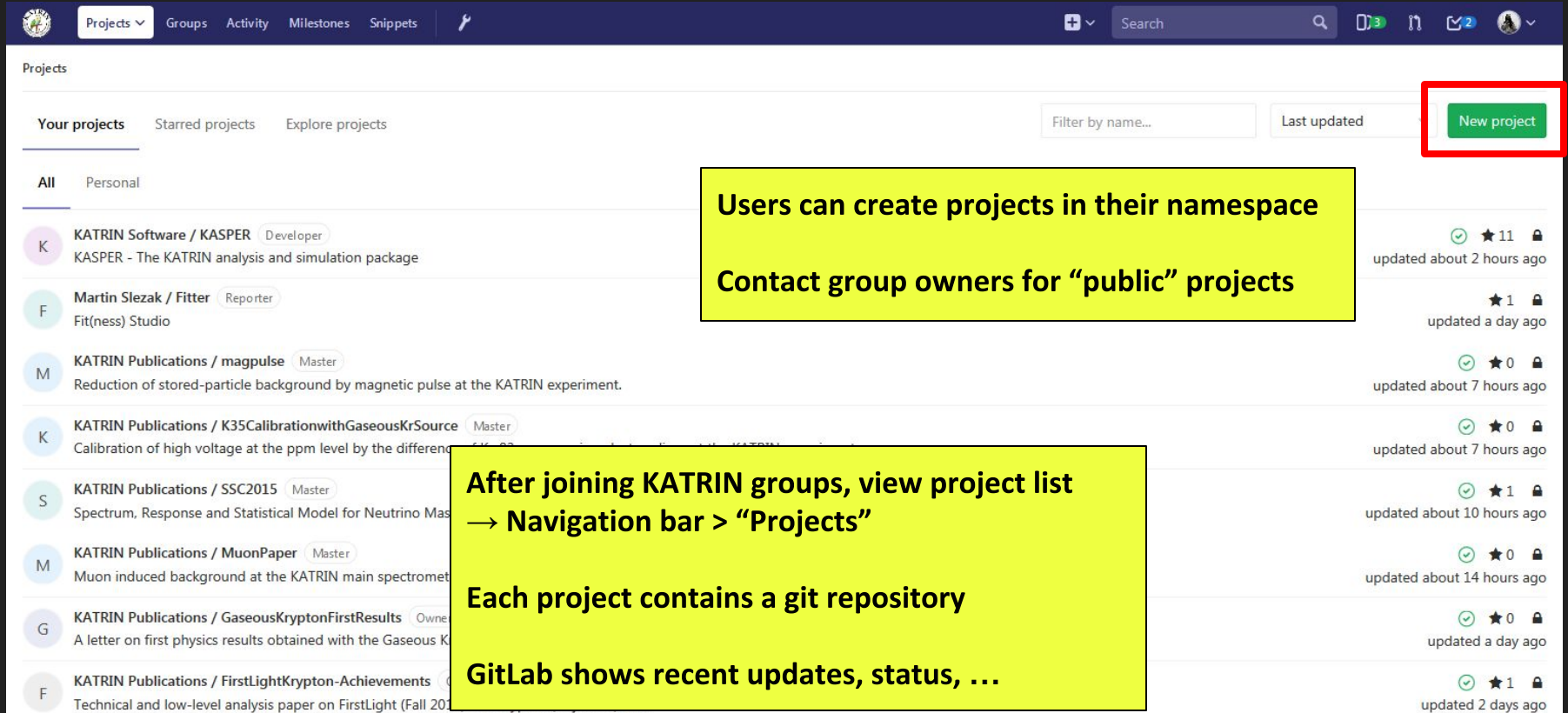
Yellow text box:

After joining KATRIN groups, view project list
→ Navigation bar > “Projects”

Each project contains a git repository

GitLab shows recent updates, status, ...

GitLab: Projects (2)



The screenshot shows the GitLab interface for the 'Projects' section. The navigation bar at the top includes 'Projects', 'Groups', 'Activity', 'Milestones', and 'Snippets'. A search bar and notification icons are also present. Below the navigation, there are tabs for 'Your projects', 'Starred projects', and 'Explore projects'. A 'Filter by name...' input field and a 'Last updated' dropdown are visible. A prominent green 'New project' button is highlighted with a red border. The main content area displays a list of projects, each with a profile picture, name, role, description, and update status. A yellow callout box is overlaid on the right side of the project list, and another yellow callout box is overlaid on the bottom left of the project list.

Users can create projects in their namespace
Contact group owners for “public” projects

After joining KATRIN groups, view project list
→ Navigation bar > “Projects”

Each project contains a git repository

GitLab shows recent updates, status, ...

GitLab: Code Repository (1)

GitLab features & documentation:
<https://about.gitlab.com/features/>

The screenshot displays the GitLab interface for the 'KASPER' project. The left sidebar, highlighted with a red box, contains navigation links: Overview, Details, Activity, Cycle Analytics, Repository, Issues (37), Merge Requests (1), CI / CD, Wiki, Snippets, and Settings. The main content area shows the project name 'KASPER' with a lock icon, its description 'KASPER - The KATRIN analysis and simulation package', and a row of interaction buttons: Unstar (11), Fork (0), HTTPS clone URL, and other options. Below this, there are links for Files (584.2 MB), Commits (11,094), Branches (215), Tags (14), Readme, Changelog, CI configuration, Add License, and Add Contribution guide. The 'Recent updates' section lists activities such as 'Luke Kippenbrock commented on issue #103', 'Jan Behrens pushed to branch develop', and 'Jan Behrens opened issue #103'. A yellow box highlights the text: 'Project overview lists recent updates → copy & paste git clone URL from here' and 'Use navigation bar on the left to change views → some projects may have extra features'.

GitLab: Code Repository (2)

The screenshot displays the GitLab interface for a repository named 'KASPER' under the 'KATRIN Software' group. The left sidebar contains navigation options: Overview, Repository, Files, Commits, Branches, Tags, Contributors, Graph, Compare, Charts, Issues (37), Merge Requests (1), CI / CD, Wiki, and Collapse sidebar. The main content area shows the 'develop' branch with a commit history table. A red box highlights the file list, and two yellow boxes provide instructions on navigating and cloning the repository.

Name	Last commit	Last update
Desaster	improve handling of module versions, make minimum CMake version consistent...	about 3 hours ago
Documentation	[KSC] fix bug in MainSpecMagnetometersCalculator	4 months ago
Idle	improve handling of module versions, make minimum CMake version consistent...	about 3 hours ago
KEMField	improve handling of module versions, make minimum CMake version consistent...	about 3 hours ago
KEloss	improve handling of module versions, make minimum CMake version consistent...	about 3 hours ago
KGeoBag	improve handling of module versions, make minimum CMake version consistent...	about 3 hours ago
KSC	improve handling of module versions, make minimum CMake version consistent...	about 3 hours ago
KTemplate	improve handling of module versions, make minimum CMake version consistent...	about 3 hours ago
KTrAP	improve handling of module versions, make minimum CMake version consistent...	about 3 hours ago
KaFit	improve handling of module versions, make minimum CMake version consistent...	about 3 hours ago

**You can browse all files in the repository
→ small edits can be done in GitLab, too!**

**Project overview lists recent updates
→ copy & paste git clone URL from here**

**Use navigation bar on the left to change views
→ some projects may have extra features**

GitLab: Issue Tracking (1)

KATRIN Software > KASPER > Issues

Open 37 Closed 67 All 104

Feed Edit issues New issue

Search or filter results... Created date

- Remove KTemplate module**
#105 · opened about 4 hours ago by Jan Behrens · Kasper 3.5 · updated about 4 hours ago
- Possible issues with ROOT histogram binning**
#102 · opened 5 days ago by Jan Behrens · Kasper 3.5 · Code Issue · Validation issue · updated 5 days ago
- KaLiRpcTest.KLDataManager UnitTest randomly fails or succeeds**
#95 · opened 4 months ago by Alexander Fulst · Kasper 3.5 · Code Issue · [KaLi] · [UnitTest] · updated a week ago
- Build fails with glibc 2.26**
#94 · opened 4 months ago by Christian Karl · Kasper 3.5
- Iterative solve fails to converge**
#91 · opened 8 months ago by Luke Kippenbrock · Kasper 3.5 · [KEMField] · [Kassiopeia]
- KaLi complete file**
#90 · opened 9 months ago by Moritz Erhard · Kasper 3.4 · To Do · [KaLi]
- KSTermTrapped may be numerically unstable**
#89 · opened 9 months ago by Jan Behrens · Code Issue · Validation issue · [Kassiopeia]
- Fast Multipole Field Solver gives wrong results when using OpenCL**

Fast Multipole Field Solver gives wrong results when using OpenCL

Issue tracking: report errors, suggest fixes

Issues can be assigned, closed, discussed ...

**Mainly used for KASPER, but also for papers
→ anyone can report issues, please do!**

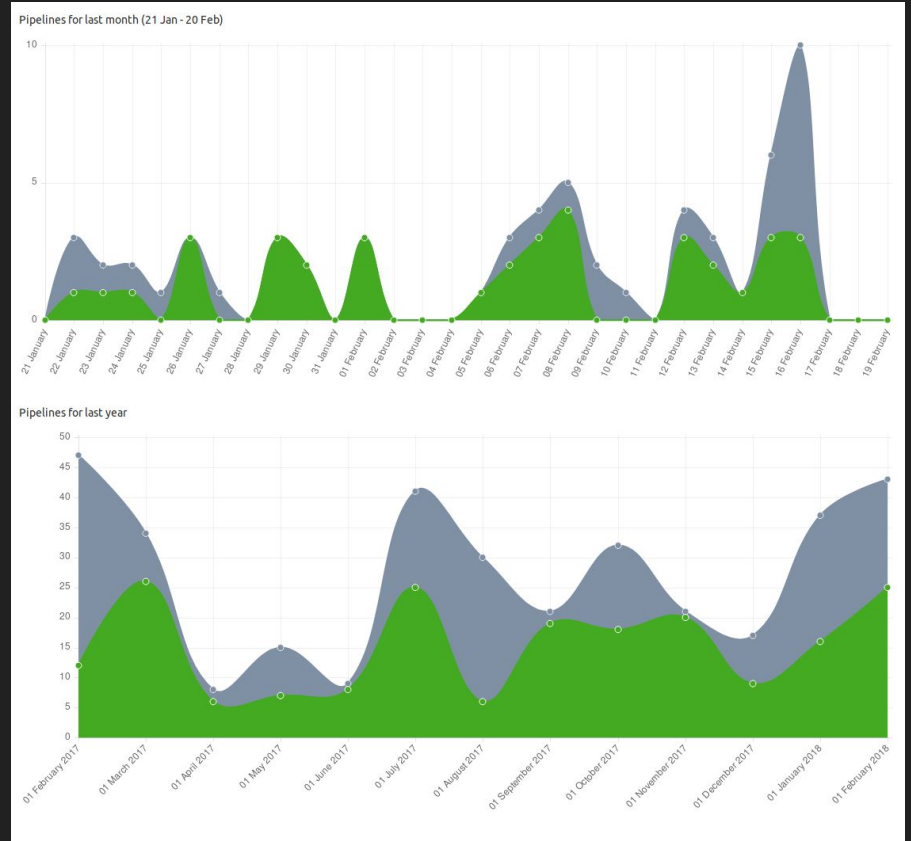
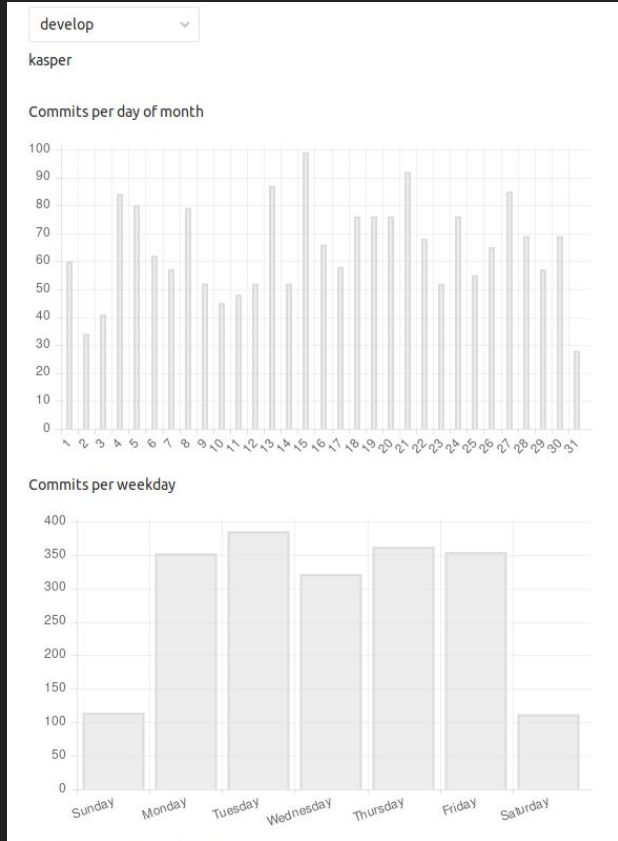
GitLab: Issue Tracking (2)

Issue tracking: report errors, suggest fixes

Issues can be assigned, closed, discussed ...

**Mainly used for KASPER, but also for papers
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GitLab: Statistics



GitLab: Publications (1)

Projects Groups Activity Milestones Snippets

This group Search

KATRIN Publications

KATRIN Publications Details

KATRIN Publications

Group for collaborative writing.
How To • New project • Autobuilds

Leave group Custom

Filter by name... Last updated New project

- Testing**
Just a test project to play around with - do not use for productive writing :)
- SDSMagneticFieldMonitoring**
It's an awesome project, in fact it's the best, everybody says so :P
- eVSterileSens**
Search for light sterile neutrinos with the KATRIN experiment
- CubaturePaper2016**
Electric potential and field calculation of charged BEM triangles and rectangles by Ga
- Neutrino2016ProceedingsWGTSofKATRIN**
The Windowless Gaseous Tritium Source (WGTS) of the KATRIN experiment

GitLab works well for paper writing!
→ similar structure to code development

Each paper is assigned a project in GitLab
→ git repository, issue tracking, notifications

GitLab: Publications (2)

StartingPoint Wiki & Guide for new writers:
<https://nuserv.uni-muenster.de:8443/katrin-pub/StartingPoint/wikis>

The screenshot shows the GitLab interface for the 'StartingPoint' repository. The left sidebar contains navigation options: Overview, Repository, Files, Commits, Branches, Tags, Contributors, Graph, Compare, Charts, Wiki, Snippets, and Settings. The main content area displays the repository structure with a table of files and folders. A commit history is visible at the top, showing a recent commit by Jan Behrens. Two yellow callout boxes provide additional information about the repository's structure and GitLab's utility for paper writing.

Name	Last commit	Last update
figures	Initial commit	a year ago
journal_elsevier	Add alternative BibTeX classes that limit the number of authors.	a week ago
journal_epjc	Add alternative BibTeX classes that limit the number of authors.	a week ago
journal_iop	Add alternative BibTeX classes that limit the number of authors.	a week ago
journal_jinst	add correct BibTeX for JINST	a week ago
.gitignore	Add more journal templates + t	a week ago
.gitlab-ci.yml	update + enable CI	a week ago
Makefile	auto-update references from ka	a week ago
authorlist.py	fix small bug in authorlist.py	a week ago
siunitx-abbreviations.cfg	add missing siunitx files	a year ago

StartingPoint project contains basic material
→ journal templates, LaTeX Makefile, ...

GitLab works well for paper writing!
→ similar structure to code development

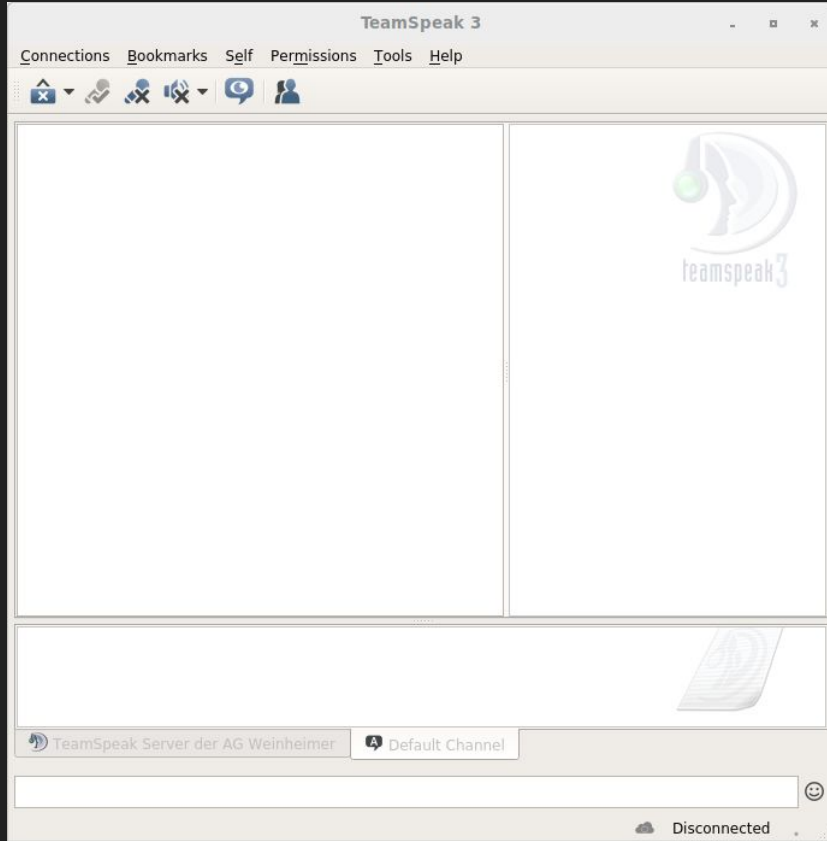
Each paper is assigned a project in GitLab
→ git repository, issue tracking, notifications

TeamSpeak



- What?** VoIP-based audio communication software.
Runs a TeamSpeak server instance, hosted in Münster.
- Why?** Used for calls, multiple channels allow simultaneous calls.
The server is easily accessible, mobile apps are available.
Good audio quality even for unreliable connections.
- Where?** ts3server://nuserv.uni-muenster.de

TeamSpeak 3: Overview



Desktop client software required:

<https://teamspeak.com/en/downloads.html>

There are mobile apps, too (non-free, few \$)

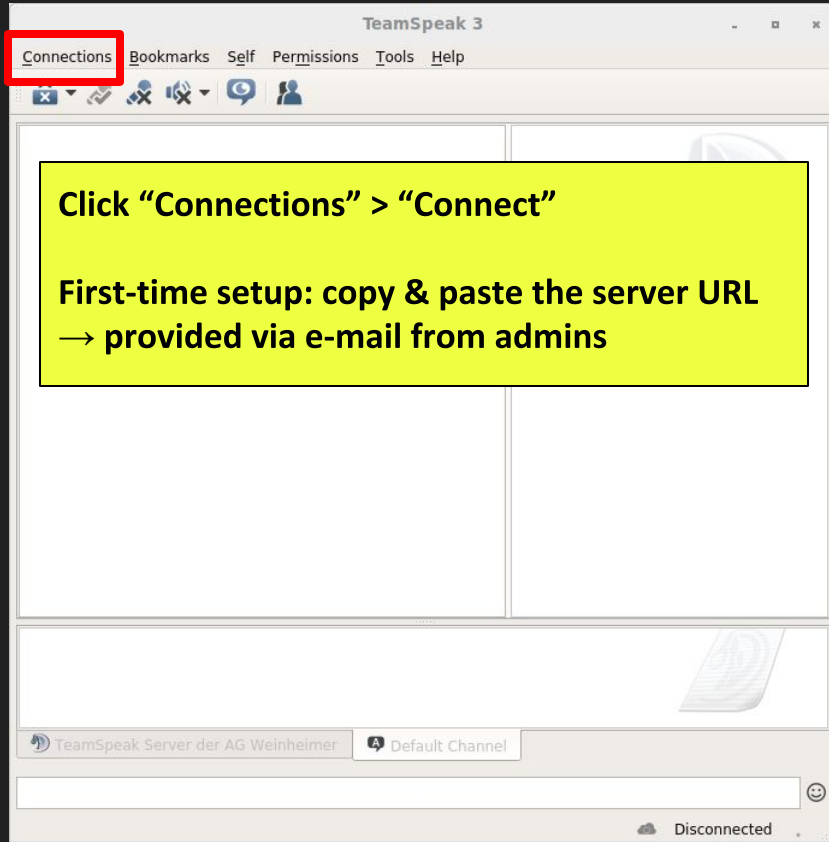
To get an account, contact one of the admins

jan.behrens@kit.edu / alexanderfulst@wwu.de

Account is stored in the client (can be exported)

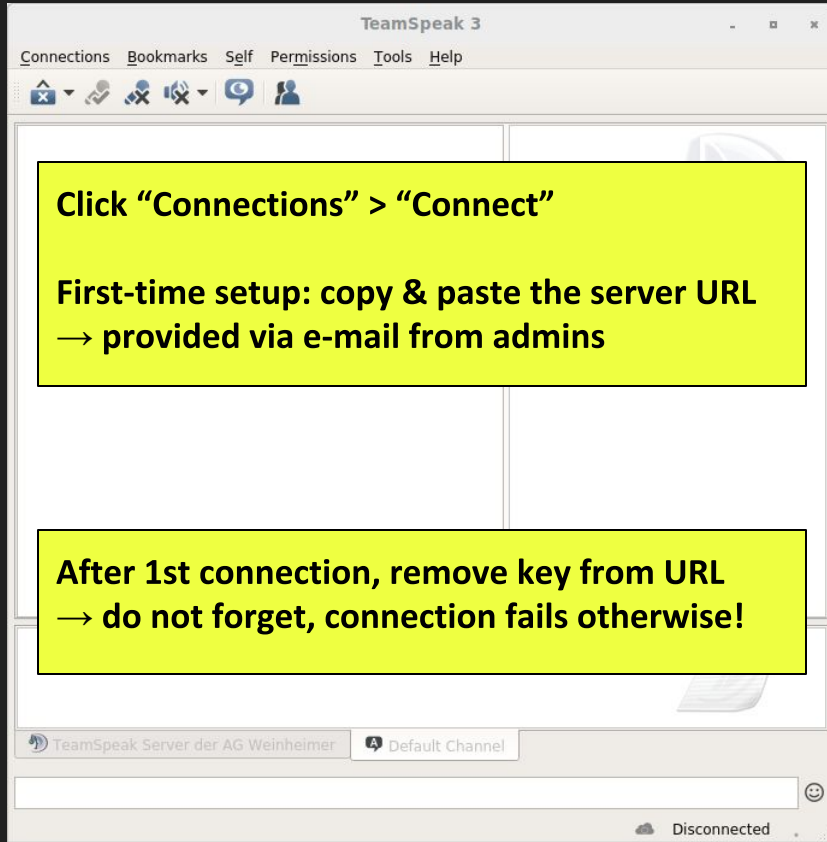
→ you may need another key for other devices

TeamSpeak 3: Accounts



TODO: connect with priv. key

TeamSpeak 3: Accounts



The screenshot shows the TeamSpeak 3 client window. The title bar reads "TeamSpeak 3". The menu bar includes "Connections", "Bookmarks", "Self", "Permissions", "Tools", and "Help". The toolbar contains icons for home, mute, unmute, volume, chat, and profile. A yellow text box in the center contains the following instructions:

Click "Connections" > "Connect"

**First-time setup: copy & paste the server URL
→ provided via e-mail from admins**

Another yellow text box at the bottom contains:

**After 1st connection, remove key from URL
→ do not forget, connection fails otherwise!**

At the bottom of the client, there is a status bar showing "TeamSpeak Server der AG Weinheimer" and "Default Channel". The connection status is "Disconnected".

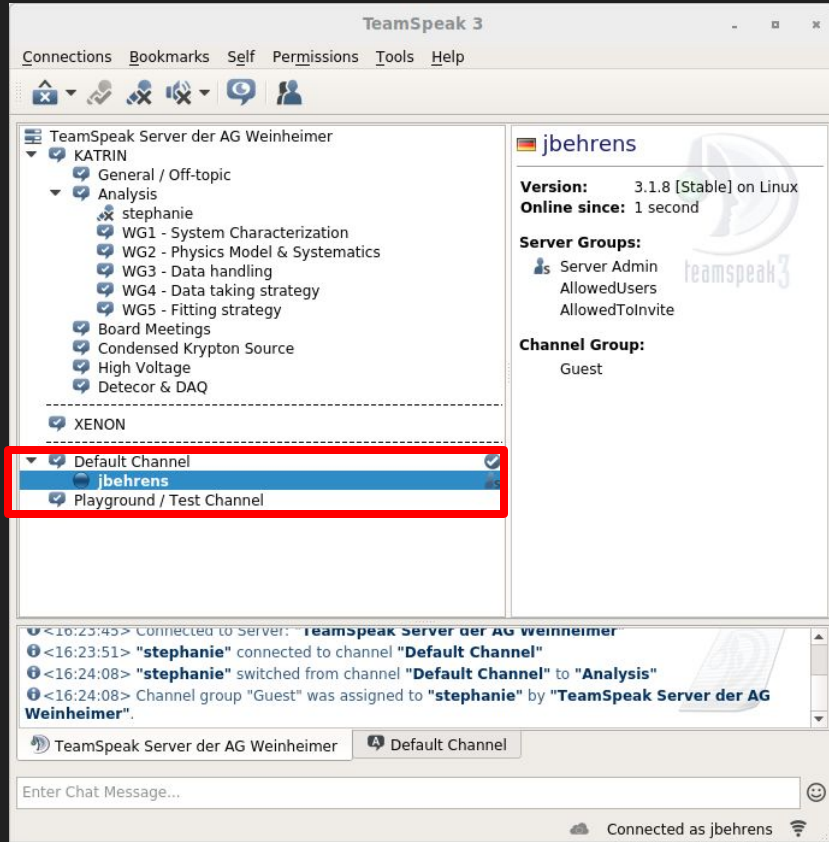
TODO: connect with priv. key



The "Connect" dialog box is shown. It has the following fields and buttons:

- Server Nickname or Address:** A text box containing "ts3server://nuserv.uni-muenster.de". This field is highlighted with a red rectangle.
- Server Password:** An empty text box.
- Nickname:** A text box containing "jbehrens".
- Buttons:** "More" (with a dropdown arrow), "Connect", "In New Tab", and "Cancel".

TeamSpeak 3: Getting started (1)



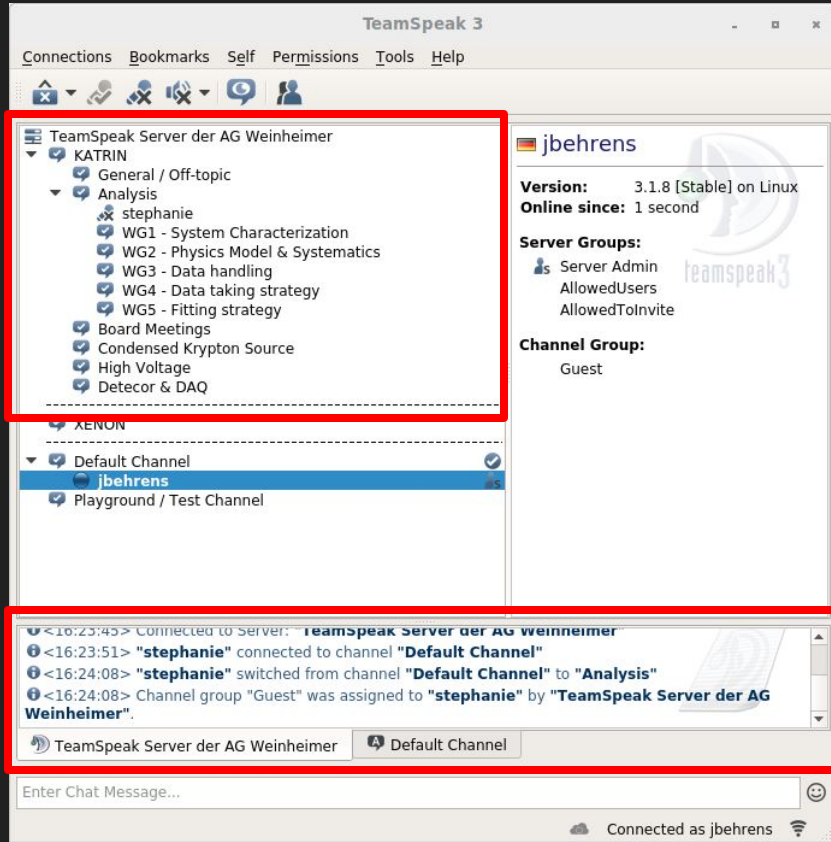
The screenshot shows the TeamSpeak 3 client interface. The main window is titled "TeamSpeak 3" and has a menu bar with "Connections", "Bookmarks", "Self", "Permissions", "Tools", and "Help". Below the menu bar is a toolbar with icons for home, mute, volume, microphone, and user management. The main area is divided into two panes. The left pane shows a tree view of the server "TeamSpeak Server der AG Weinheimer". Under the "KATRIN" category, there are several channels: "General / Off-topic", "Analysis" (with sub-channels "stephanie", "WG1 - System Characterization", "WG2 - Physics Model & Systematics", "WG3 - Data handling", "WG4 - Data taking strategy", and "WG5 - Fitting strategy"), "Board Meetings", "Condensed Krypton Source", "High Voltage", and "Detecor & DAQ". Below this is the "XENON" category. At the bottom of the tree, the "Default Channel" is expanded, showing "jbehrens" (highlighted with a red box) and "Playground / Test Channel". The right pane shows the profile for user "jbehrens", including their version (3.1.8 [Stable] on Linux), online time (1 second), server groups (Server Admin, AllowedUsers, AllowedToInvite), and channel group (Guest). The bottom of the window shows a chat log with messages: "<16:23:45> Connected to Server: TeamSpeak Server der AG weinheimer", "<16:23:51> 'stephanie' connected to channel 'Default Channel'", "<16:24:08> 'stephanie' switched from channel 'Default Channel' to 'Analysis'", and "<16:24:08> Channel group 'Guest' was assigned to 'stephanie' by 'TeamSpeak Server der AG Weinheimer'". At the bottom, there is a chat input field with the text "Enter Chat Message..." and a status bar showing "Connected as jbehrens".

TS server features multiple KATRIN channels

Pick the right channel for your meeting

For testing, use the dedicated channels

TeamSpeak 3: Getting started (2)



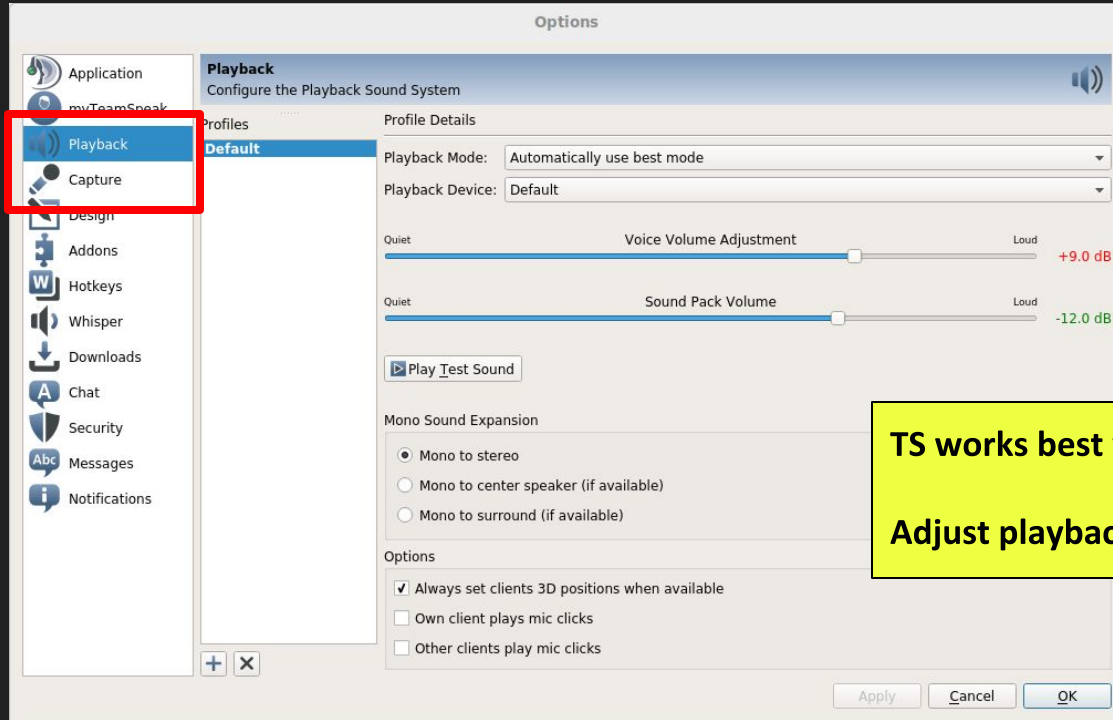
Users can switch between channels

User list shows channels, users & their status

Keep an eye on the channel chat window!

→ ,eeting material is often posted there

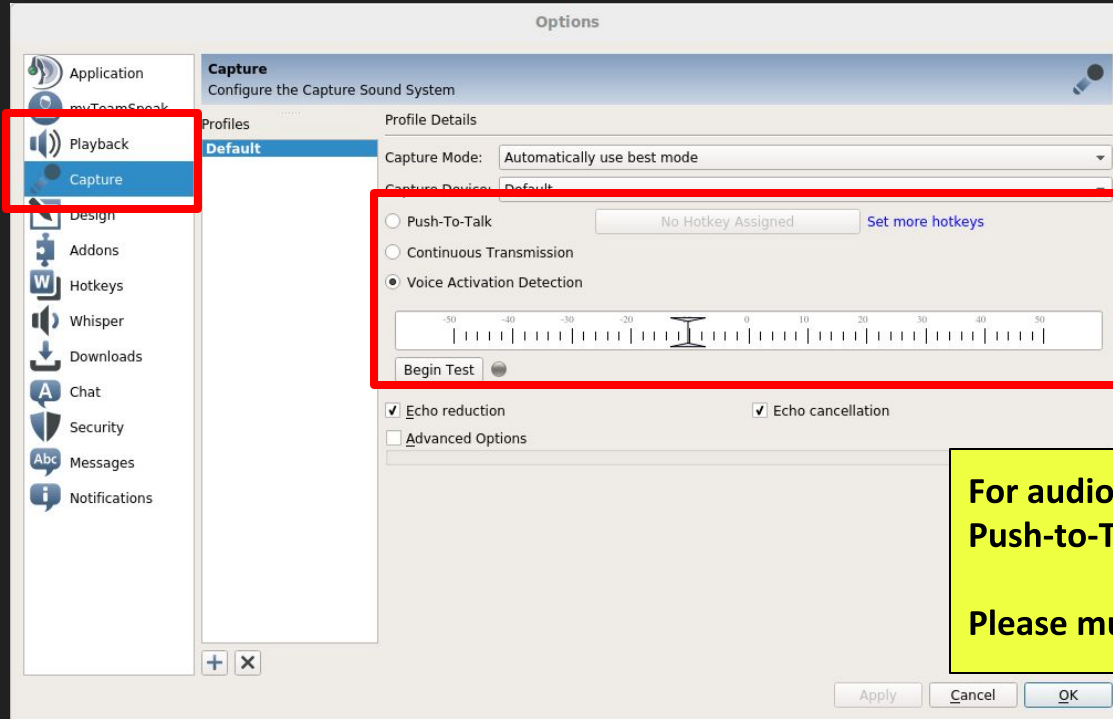
TeamSpeak: Audio settings (1)



TS works best with a headset / microphone

Adjust playback / capture settings to your needs

TeamSpeak: Audio settings (2)



**For audio capture, choose between 3 options:
Push-to-Talk, Continuous, Voice Activation**

Please mute your mic when you're not speaking!

#slack



What?

Team communication tool, similar to a chat platform.

Third party service, currently using “free” plan from slack.com

Why?

Provides a near-time communication platform with notifications.

Multiple channels are available for specific discussion topics.

Integration with GitLab is possible to get automatic updates.

join [#slack here](#)
or use QR code:

Where?

<https://katrin-experiment.slack.com>



#Slack: Overview (1)

Slack help center & starting guide:
<https://get.slack.help/hc/en-us>

The screenshot shows a Slack interface for the #general channel. On the left is a sidebar with a user list where 'KATRIN' is highlighted. The main area shows the channel header, a description, and a message history. A yellow callout box is overlaid on the right side of the channel view.

Needs personal account on slack.com

Anyone can join via invite link

#general
@Martin Ha Minh created this channel on October 17th, 2017. This is the very beginning of the #general channel. Purpose: For discussions about general matters. (edit)
+ Add an app | Invite others to this channel

19:23 **Susanne Mertens** joined #general.

October 23rd, 2017

11:19 **Martin Ha Minh** Example question
1 reply 4 months ago

11:20 **Martin Ha Minh** replied to a thread: [Example question](#)
Example reply

11:20 **Martin Ha Minh** added and commented on this Plain Text snippet: [Example code](#)

```
1 #include <KASPER>
2
3 int main(){
4     cout << "This is an example code" << endl;
5     return 0;
6
```

This is also saved in your files.

+ Message #general

#Slack: Overview (2)

Slack help center & starting guide:
<https://get.slack.help/hc/en-us>

The screenshot shows a Slack channel named #general. The channel name and description are highlighted with a red box. The channel description states: "@Martin Ha Minh created this channel on October 17th, 2017. This is the very beginning of the #general channel. Purpose: For discussions about general matters. (edit) + Add an app Invite others to this channel". A yellow box highlights the text: "Needs personal account on slack.com" and "Anyone can join via invite link". The channel history shows a message from Susanne Mertens: "19:23 Susanne Mertens joined #general." A date separator indicates "October 23rd, 2017". The history continues with a message from Martin Ha Minh: "11:19 Martin Ha Minh Example question" with 1 reply 4 months ago. A reply from Martin Ha Minh is shown: "11:20 Martin Ha Minh replied to a thread: Example question Example reply". Another message from Martin Ha Minh is shown: "11:20 Martin Ha Minh added and commented on this Plain Text snippet: Example code". The code snippet is:

```
1 #include <KASPER>
2
3 int main(){
4     cout << "This is an example code" << endl;
5     return 0;
6
```

 Below the code, it says "This is also saved in your files." The message input area at the bottom is highlighted with a red box, showing a plus sign, the text "Message #general", and icons for mentions and emojis.

#general
☆ | 👤 55 | 🌟 1 | Any general discussions, updates and announcements.

general
@Martin Ha Minh created this channel on October 17th, 2017. This is the very beginning of the #general channel. Purpose: For discussions about general matters. (edit)
+ Add an app Invite others to this channel

19:23 **Susanne Mertens** joined #general.

October 23rd, 2017

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Example reply

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```
1 #include <KASPER>
2
3 int main(){
4     cout << "This is an example code" << endl;
5     return 0;
6
```

This is also saved in your files.

+ Message #general

#Slack: Channels

The image shows a Slack interface with a sidebar on the left and a main channel view on the right. The sidebar contains a 'Jump to...' search box at the top, followed by 'All Unreads', 'All Threads', 'Starred' channels, 'Channels' list, and 'Direct Messages'. The 'Channels' list includes # firstlightkrypton, # kasper, # daq, # general (highlighted), # git-workshop, # katrin-operations, and # offtopic. The main channel view shows the #general channel with a message from @Martin Ha Minh and a code block. A yellow callout box highlights the 'Jump to...' box and the 'Channels' list. A white search overlay is open, showing a list of channels starting with '#', with # katrin-operations selected. The overlay also includes a tip and navigation instructions.

Join existing channels via the sidebar

Also check the “Jump to” box

Tip: Open this faster with Ctrl+K

- #
- # katrin-operations
- # firstlightkrypton
- # kasper
- # daq
- # offtopic
- # ddc_kafitssteam (not a member)
- # general

tab or ↑ ↓ to navigate | ↵ to select | esc to dismiss | Ctrl+K to open

#Slack: Features

KATRIN ▾
● J Behrens

Jump to...

All Unreads
All Threads

Starrd
firstlightkrypton
kasper

Channels (+)
daq
general
offtopic

Direct Messages (+)
♥ slackbot
● J Behrens (you)
● Diana Parno 🏠
○ Florian Heizmann
○ Kathrin Valerius 🏠
○ Marco Deffert
○ Philipp Ranitzsch
○ Sanshiro Enomoto
○ Stephanie Hickford
● Susanne Mertens
○ Wonqook Choi

#kasper
★ | 👤 53 | 🗨️ 2 | Discussions about KASPER development.

Today

4cce3e4a: Take a response function from Txt file
- qook


a80fce98: Merge branch 'develop' of nuserv.uni-muenster.de:katrin-git/kasper into develop
- Jan Behrens [Show more...](#)

15:27 **GitLab** APP [katrin-git/kasper] Issue <<https://nuserv.uni-muenster.de:8443/katrin-git/kasper/issues/99%7C#99>> Issue when using two <kassiopeia> elements> closed by jbehrens
Jan Behrens pushed to branch [develop](#) of [katrin-git/kasper](#) ([Compare changes](#))
[6d32b701](#): [Kassiopeia] allocate root objects in KSRoot constructor only when needed, fixes #99
- Jan Behrens

15:39 **Sanshiro Enomoto** Did someone try kasper-on-docker?

15:47 **Sanshiro Enomoto** I mean, did someone try installing kasper on docker? Is there dockerfile for kasper that we can use? It might be helpful for non-kasper users to use some basic tools.

15:49 **Martin Ha Minh** There's this container by Jan on the git: <https://nuserv.uni-muenster.de:8443/katrin-git/Dockerfiles>
I was wondering if we can modify that for general usage

 **GitLab**
[Sign in](#)
KATRIN GitLab

16:21 **J Behrens** added this Docker snippet: [Dockerfile for KASPER](#) ▾

```
1 #####  
2 # Dockerfile to build a GitLab runner for KASPER  
3 # Based on Ubuntu 16.04 LTS  
4 #####  
5
```

Desktop notifications, direct chat, ...
Exchange code snippets with users
Heavily integrated with GitLab

+ Message #kasper

#Slack: Statistics

All-Time Usage

Messages Sent
5,950

out of 10,000 messages



↑ 3,407 messages (+134%) over the last 30 days.

File Storage Used

46.9 MB

out of 5.0 GB of file storage



↑ 25.5 MB (+119.4%) over the last 30 days.

Apps and Integrations Installed

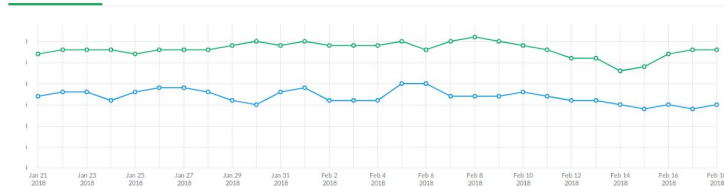
3

out of 10 apps and integrations



Active Users

Weekly active users

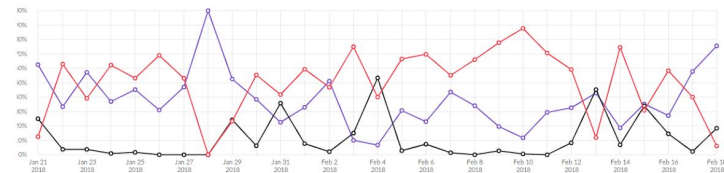


● Weekly Active Users ● Weekly Users Posting Messages

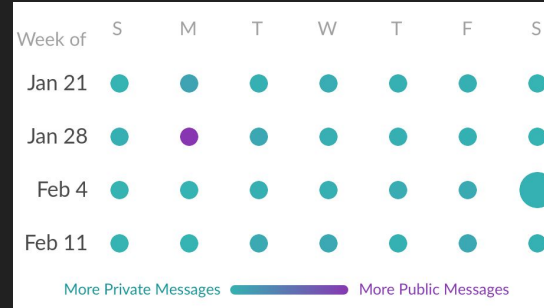
Public and Private

Understand where your members have conversations, and where messages are most commonly read. Most messages will have multiple readers.

Where people are reading Where messages are sent



● % in Public Channels ● % in Private Channels ● % in Direct Messages



Name	Created	Last Active Date	Total Channel Members	Messages Posted ▾
# firstlightkrypton Draft and publish paper o...	2017-11-10	2018-02-18	32	568
# kasper For KASPER related codin...	2017-10-23	2018-02-17	53	310
# ddc_kafitsscteam	2018-02-06	2018-02-15	6	19
# katrin-operations channel for operators and...	2018-01-17	2018-02-16	13	16

Summary

- We use a combination of different platforms
 - KATRIN Wiki → analysis material, organization of ongoing tasks, ...
 - GitLab → collaborative software development & paper writing
 - TeamSpeak → used for meetings, see list on the Wiki
 - Slack → used for quick discussions, integrated with GitLab
- Contact persons:

Jan Behrens

jan.behrens@kit.edu

Wiki/GitLab/Slack/TS

Alexander Fulst

alexanderfulst@wwu.de

GitLab/TS

Martin Ha Minh

haminh@mpp.mpg.de

Slack

Florian Heizmann

florian.heizmann@kit.edu

Wiki/ELOG

Summary

How a typical KATRIN workshop used to look like ...

- We use a combination of different platforms:
 - KATRIN Wiki → analysis material, or
 - GitLab → collaborative software
 - TeamSpeak → used for meetings, s
 - Slack → used for quick discus

- Contact persons:

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Slack

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Wiki/ELOG

