

Task 5.1 Status

Vitaly Vorobyev

3rd general WP5 meeting

17 February 2021

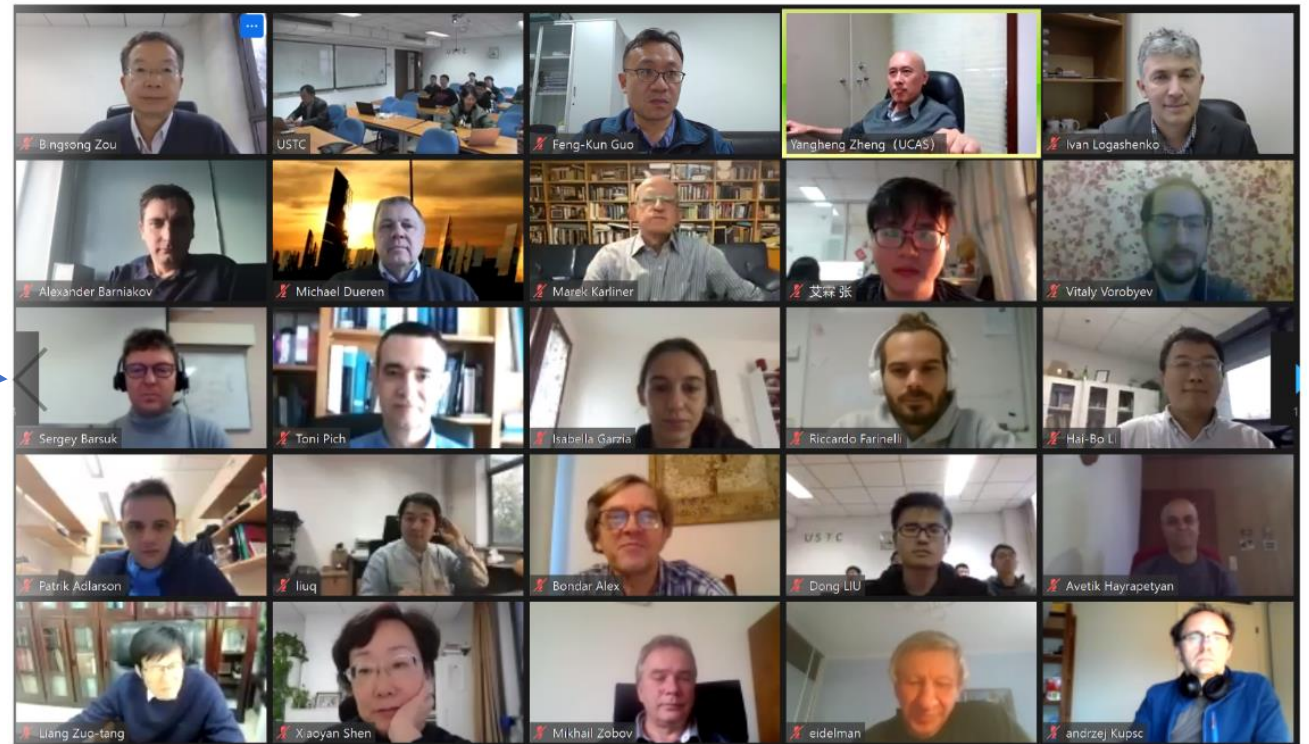


This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 871072

Task 5.1 timeline status

Task	Subtask	Subtask leader	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
5.1. Internationalization and visibility	Plenary talk on SCT at CHARM20	Vitaly Vorobyev												
	Workshop on future SCT factories	Vitaly Vorobyev												
	Public SCT webpage development	TBD												

1. CHARM20(21) confirmed, online only
 - 31.05 - 04.06.2021 ([indico](#))
2. Workshop on future super charm-tau factories
 - 16.11-18.11.2021 ([indico](#))
3. Public SCT webpage: still work in progress
 - [Prototype](#) available



SCT website

- [Prototype](#) available
 - Main page

 SCT Experiment [Home](#) [Internal](#) [Cremlinplus](#) [Login](#)

Super Charm Tau Factory

Electron-positron collider for studying charmed hadrons and tau lepton

PHYSICS

PUBLICATIONS

COLLIDER

EVENTS

DETECTOR

COLLABORATION

Super charm-tau factory is a symmetric electron-positron collider with a single collision point operating in the energy range between $\sqrt{s} = 2$ and 6 GeV. This energy range covers the charmonium family, several open charm hadrons thresholds, and the τ lepton threshold, providing the rich physics program.

Conceptual Design

[Volume I
Physics, Detector](#)[Volume II
Collider](#)

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 Scientific contact
 Press contact

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CREMLINplus WP5 Consortium


Connecting Russian and European Measures
for Large-scale Research Infrastructures



BINP
Budker's Institute of
Nuclear Physics



CERN
European
Organization for
Nuclear Research



INFN
Istituto Nazionale di
Fizica Nucleare



JLU
Justus Liebig
University Giessen



IJCLab
Le Laboratoire de
Physique des 2 Infinis
Irène Joliot-Curie

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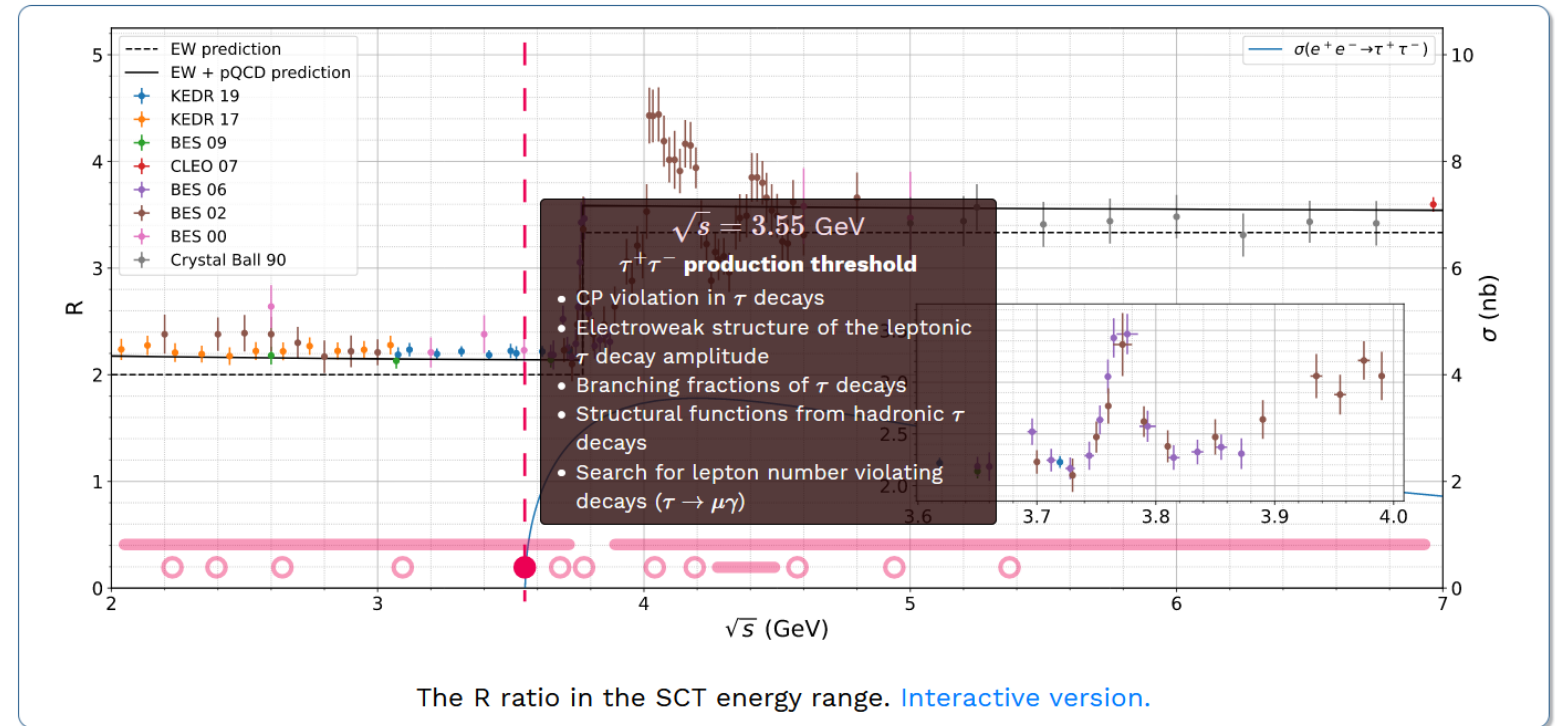
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$$R \equiv \frac{\sigma(e^+e^- \rightarrow \text{hadrons})}{\sigma(e^+e^- \rightarrow \mu^+\mu^-)}.$$

The plot below summarizes current status of the R measurement between 2 and 7 GeV. Tooltips show particularly interesting energy points and ranges, and highlight main research topics.



SCT annual yield

SCT website

- [Prototype](#) available
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 - CREMLINplus WP5 pages
 - Physics page
 - List of publications



SCT Publications

Most of the publications below are not signed by the SCT collaboration since formal collaboration is not established yet. Instead, we listed publications directly related to the SCT experiment, such as project overview, R&D reports, and physics case studies.

2020-08

Proceedings

Study of the fast calorimeter prototype for modern e^+e^- factories

[JINST 15 \(2020\) C08023](#)

2020-08

Peer reviewed

Amplitudes of two-photon processes and extension of BDK generator

[CPC 257 \(2020\) 107519](#)

2020-07

Proceedings

Simulation of the Csl crystal calorimeter of the detector of charm-tau factory in Novosibirsk

[JINST 15 \(2020\) C07026](#)

2020-04

Proceedings

Overview of PID options for experiments at the Super Charm-Tau Factory

[JINST 15 \(2020\) C04032](#)

2020-04

Proceedings

Particle identification system for the Super Charm-Tau Factory at Novosibirsk

[NIMA 958 \(2020\) 162352](#)

2020-03

Peer reviewed

Measurement of the weak mixing angle at a Super Charm-Tau factory with data-driven monitoring of the average electron beam polarization

[JHEP 03 \(2020\) 76](#)

2020-02

Proceedings

DIRC options for the Super Charm Tau Factory

[JINST 15 \(2020\) C02032](#)

2019-12

Proceedings

The Super Charm-Tau Factory in Novosibirsk

[PoS\(LeptonPhoton2019\)062](#)

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 - Physics page
 - List of publications
 - Internal pages
 - ...



SCT Internal

Collaboration tools

WIKI

GIT

INDICO

SOFTWARE
DEVELOPMENT
SERVER

Working groups

Beam background WG

Coordinator:  Boris Shwartz

Calorimeter WG

Coordinator:  Denis Epifanov

Central tracker WG

Coordinator:  Kornely Todyshev

Inner tracker WG

Coordinator:  Lev Shekhtman

Muon system WG

Coordinator:  Timofey Uglov

Particle ID WG

Coordinator:  Alexander Barnyakov

Physics WG

Coordinator:  Vitaly Vorobyev

Software WG

Coordinator:  Andrey Suharev

Task 5.1 Milestone

- M18: Kick-off meeting of collaboration around the SCT detector
- Urgent actions needed to reach the milestone in 2021