

# Report of the PubCom chair

SPD collaboration meeting

JINR, Dubna, October 3, 2022

Oleg Teryaev  
JINR, Dubna

# Temporary Publication Committee

<http://spd.jinr.ru/publication-committee/>

*Please do not forget to send us the final versions of  
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# SPD Temporary Publication Policy

13.06.2019

<http://spd.jinr.ru/wp-content/uploads/2019/06/SPDPublicationRules-1.pdf>

## General talks

A talk is treated as general if it represents overview of the SPD project in general, its physics program or the SPD setup as a whole (i. e. includes contributions from more than one working group).

## Dedicated talks

A talk reporting the results of a single working group (performance of a subdetector, a Monte Carlo simulation for a certain physics task etc.) is treated as dedicated talk.

## Journal papers

Dedicated journal papers, devoted e.g. to some particular subdetector, a special experimental technique or a Monte Carlo simulation for a certain physics task are signed by a subgroup of people who have directly contributed to the subject.

Papers with theoretical predictions for the SPD experiment are treated as private and not subject of the SPD Publication Policy except cases when the dedicated SPD elaborations (e.g. software) is explicitly used.

# “SPD” papers

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Spin Physics Detector at NICA

SPD Collaboration • V.P. Ladygin (Dubna, JINR) for the collaboration. (Mar 23, 2022)

Contribution to: SPIN 2021 • e-Print: [2203.14704 \[hep-ex\]](#)

pdf cite 0 citations

Feedback

Spin Physics Detector project at JINR #2

SPD Collaboration • V.P. Ladygin (Dubna, JINR) for the collaboration. (Oct 17, 2021)

EN ? 18:55 02.10.2022

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**The NICA-SPD project: a new tool to investigate the hadron structure**

Egle Tomasi (IRFU, Saclay) (Jul 8, 2022)

Published in: *Rev.Mex.Fis.Suppl.* 3 (2022) 3, 0308075 • Contribution to: [HADRON 2021](#)

**Spin Physics Detector at NICA**

SPD Collaboration (Publ. date: 11 May 2022) #2

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Comparison of Methods for Elliptic Flow Measurements at NICA Energy Range

MPD Collaboration • Vinh Ba Luong (Moscow Phys. Eng. Inst.) for the collaboration. (Sep 9, 2022)

Published in: *Moscow Univ.Phys.Bull.* 77 (2022) 2, 237-238 • Contribution to: [20th Lomonosov Conference on Elementary Particle Physics](#), 237-238

DOI cite 0 citations

Feedback

Centrality Determination in Heavy-Ion Collisions with MPD Detector at NICA

MPD Collaboration • Dima Tokarev (Moscow Phys. Eng. Inst.) for the collaboration. (Sep 9, 2022)

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Identification Capability of the Inner Tracking System for Detecting D Mesons at the NICA-MPD Facility

V.P. Kondratyev (St. Petersburg State U. and Dubna, JINR), N.A. Maltsev (St. Petersburg State U. and Dubna, JINR), Yu. A. Murin (Dubna, JINR) (Sep 12, 2022)

Published in: *Bull.Russ.Acad.Sci.Phys.* 86 (2022) 8, 1005-1009

DOI cite 0 citations

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**The heavy-ion program at the upgraded Baryonic Matter@Nuclotron Experiment at NICA**

BM@N Collaboration • Peter Senger (FAIR, Darmstadt and Moscow Phys. Eng. Inst.) for the collaboration. (Aug 23, 2022)

Published in: PoS CPOD2021 (2022) 033 • Contribution to: CPOD 2021, 033

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**Measurements of Centrality in Nucleus–Nucleus Collisions at the BM@N Experiment**

BM@N Collaboration (Moscow Phys. Eng. Inst., MFTI, MIPT, etc.) (Aug 23, 2022)

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**The heavy-ion program at the upgraded Baryonic Matter@Nuclotron Experiment at NICA**

BM@N Collaboration • Peter Senger (FAIR, Darmstadt and Moscow Phys. Eng. Inst.) for the collaboration. (Aug 23, 2022)

Published in: PoS CPOD2021 (2022) 033 • Contribution to: [CPOD 2021](#), 033

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**Magnetic Shielding Simulation for the PMTs at the Two-Arm Spectrometer for the SRC**

Project at BM@N

EN [?](#) 19:00 02.10.2022

# SPD related papers

<http://spd.jinr.ru/spd-publications/>

[On the physics potential to study the gluon content of proton and deuteron at NICA SPD](#)

**A. Arbuzov (Dubna, JINR), A. Bacchetta (Pavia U. and INFN, Pavia), M. Butenschoen (Hamburg U., Inst. Theor. Phys. II), F.G. Celiberto (Pavia U. and INFN, Pavia and ECT, Trento and Fond. Bruno Kessler, Povo), U. D'Alesio (Cagliari U. and INFN, Cagliari) et al.**

e-Print: [2011.15005 \[hep-ex\]](#)

DOI: [10.1016/j.ppnp.2021.103858](#)

Published in: **Prog.Part.Nucl.Phys. 119 (2021), 103858**

[50 citations](#)

[Possible Studies at the First Stage of the NICA Collider Operation with Polarized and Unpolarized Proton and Deuteron Beams](#)

**V.V. Abramov (Serpukhov, IHEP), A. Aleshko (SINP, Moscow), V.A. Baskov (Lebedev Inst.), E. Boos (SINP, Moscow), V. Bunichev (SINP, Moscow) et al.**

DOI: [10.1134/S1063779621060022](#)

Published in: **Phys.Part.Nucl. 52 (2021) 6, 1044-1119**

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## The high-energy limit of perturbative QCD: Theory and phenomenology #1

Francesco Giovanni Celiberto (ECT, Trento and Fond. Bruno Kessler, Trento and TIFPA-INFN, Trento), Michael Fucilla (Calabria U. and INFN, Cosenza and Novosibirsk, IYF and Novosibirsk State U.), Alessandro Papa (Calabria U. and INFN, Cosenza and Novosibirsk, IYF and Novosibirsk State U.) (Sep 3, 2022)

Contribution to: [QCD@Work 2022](#) • e-Print: [2209.01372 \[hep-ph\]](#)

[pdf](#) [cite](#) 0 citations

## Emergence of high-energy dynamics from cascade-baryon detections at the LHC #2

Francesco Giovanni Celiberto (ECT, Trento and Fond. Bruno Kessler, Trento and TIFPA-INFN, Trento) (Aug 30, 2022)

e-Print: [2208.14577 \[hep-ph\]](#)

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# Conferences

<http://spd.jinr.ru/conferences/>

2021: 13 talks at 11 conferences

24<sup>th</sup> INTERNATIONAL SPIN SYMPOSIUM SPIN2021 18-22 OCTOBER 2021  
MATSUE JAPAN

SPIN PHYSICS DETECTOR AT NICA! PLENARY TALK BY I LADYGIN (FOR SPD  
COLLABORATION)

XXVIII International Workshop on Deep-Inelastic Scattering and Related Subjects,  
Stony Brook, 12-16 April 2021

The SPD (Spin Physics Detector) experiment at NICA, talk by A. Korzenev (for SPD  
Collaboration)

22-nd PANIC21 Conference, 5-10 September 2021, Lisbon, Portugal

Spin Physics Detector project at JINR, talk by A. Guskov (for SPD Collaboration)

Quarkonia as Tools 2021, 22-26 March 2021

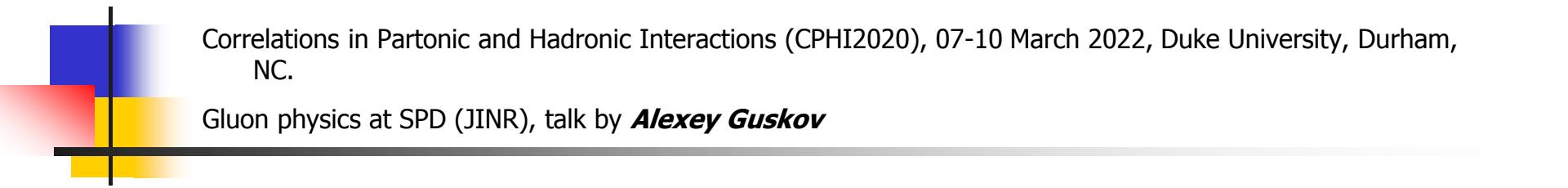
Physics with charmonia at the SPD experiment, talk by I. Denisenko (for SPD  
Collaboration) 19-th International Conference on Hadron Spectroscopy and  
Structure in memoriam Simon Eidelman (HADRON2021), 26-31 July 2021,  
Mexico City, Mexico

The NICA-SPD project: a new tool to investigate the hadron structure, talk by E.  
Tomasi - Gustafsson(for SPD Collaboration)

# 2022:12 talks at 12 conferences

Quarkonia as Tools 2022, 9-15 January 2022, Aussois, France.

Quarkonium Physics at SPD NICA, talk by ***Amaresh Datta***



Correlations in Partonic and Hadronic Interactions (CPHI2020), 07-10 March 2022, Duke University, Durham, NC.

Gluon physics at SPD (JINR), talk by ***Alexey Guskov***

First Pan-African Astro-Particle and Collider Physics Workshop, 21-23 March 2022

The Spin Physics Detector at NICA, talk by ***Reham El-Kholy***

nformation and Telecommunication Technologies and Mathematical Modeling of High-Tech Systems 2022 (ITMM 2022), Moscow, Russia, April 18-22, 2022

Применение метода максимального правдоподобия для оценки параметров траекторий элементарных частиц в задаче реконструкции внутреннего детектора эксперимента SPD NICA, talk by ***Alexey Zhemchugov***

15th Pisa Meeting on Advanced Detectors, 22-28 May 2022. La Biodola, Isola d'Elba, Italy

VMM3a ASIC as a potential front-end electronics solution for future Straw Trackers, talk by ***Vitalii Bautin***

# Conferences-2022

12th Conference on Nuclear and Particle Physics (NUPPAC' 22), 15-18 May 2022, Sharm el-Sheikh, Egypt

Spin physics detector at NICA, talk by ***Reham El-Kholy***

XXIX International Seminar Nonlinear Phenomena in Complex Systems, Minsk, Belarus, June 21-24, 2022

MiniSPD stand for testing Si-detectors, talk by ***Elena Kokoulina***

Study of soft photons at SPD/NICA setup, talk by ***Elena Kokoulina***

LXXII International Conference "Nucelus-2022: Fundamental problems and applications", Moscow, July 11-16, 2022

Possible Physics Studies at the First Stage of the NICA SPD Programme, talk by ***Yuriy Uzikov***

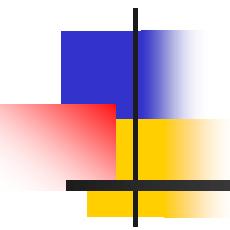
International Workshop on Hadron Structure and Spectroscopy 2022 (IWHSS-2022), Geneva, Switzerland, August 29-31, 2022

NICA-SPD project, talk by ***Alexey Guskov***

9th International Conference on Quarks and Nuclear Physics (QNP2022), 5-9 September 2022. Conference center Gustav Stresemann Institute, Bonn, Germany.

SPD experiment at JINR, talk by ***Igor Denisenko***

# Conferences-2022



The IV International Scientific Forum "Nuclear science and Technologies", 26-30 September 2022, Kazakhstan, Almaty

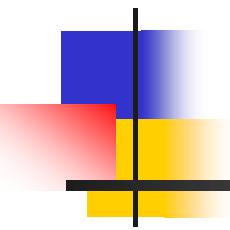
Suggestions for studies at the first stage of the NICA SPD physical programme, talk by ***Yuriy Uzikov***

## **2022 ( planned)**

The 6th International Conference on Particle Physics and Astrophysics (ICPPA-2022), Moscow, Russia, (from the 29th of November to the 2nd of December)

Spin Physics Detector (SPD) at NICA, talk by ***Amaresh Datta***

# Plans for 2023: DSPIN?



DSPIN was cancelled in 2021 (due to shift of SPIN-2020) and 2022

DSPIN 2023: experience of International Conference on Quantum Field Theory, High-Energy Physics, and Cosmology

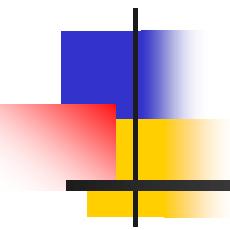
<https://indico.jinr.ru/event/3043/> 18-21 july 2022, BLTP, JINR

Organized by JINR, INR, SINP

Mostly in-person participation

Section on 3D/spin structure, SPD-related talks

# SUMMARY



SPD is visible in publications and conference talks

SPD physics is extensively studied and presented

More is required: DSPIN 2023 should be a good particular option