

# 出版論文

## 原子核・ハドロングループ

### 1. 発表論文

Highlights from the PHENIX experiment

N. J. Abdulameer *et al.*

arXiv [nucl-ex] 2212, 08215 (2022)

Pole position of  $\Lambda(1405)$  measured in  $d(K^-, n)\pi\Sigma$  reactions

S. Aikawa *et al.*

Phys. Lett. B **837** (2023), 137637

Measurement of  $\phi$ -meson production in Cu + Au collisions at  $\sqrt{s_{NN}} = 200$  GeV and U + U collisions at  $\sqrt{s_{NN}} = 193$  GeV

N. J. Abdulameer *et al.* (PHENIX Collaboration)

Phys. Rev. C **107** (2023) no.1, 014907

X-ray spectroscopy experiments on exotic Xi atoms at J-PARC

T. O. Yamamoto *et al.*

PoS **PANIC2021** (2022), 211

Low- $p_T$  direct-photon production in Au+Au collisions at  $\sqrt{s_{NN}}=39$  and 62.4 GeV

U. A. Acharya *et al.*

arXiv: [nucl-ex] 2203, 12354 (2022)

Summary of the  $K^-pp$  bound-state observation in E15 and future prospects

F. Sakuma, S. Ajimura, T. Akaishi, H. Asano, M. Bazzi, G. Beer, H. Bhang, M. Bragadireanu, P. Buehler and L. Busso, *et al.*

EPJ Web of Conferences 262, 01008 (2022)

Towards the Measurement of the Mass Modifications of Vector Mesons in a Finite Density Matter

K. Ozawa *et al.*

Acta Phys.Polon.A 142 (2022) 3, 399-404

Measurement of the  $\Omega_c^0$  lifetime at Belle II

Belle-II Collaboration

Phys.Rev.D 107 (2023) 3, L031103

Search for a Dark Photon and an Invisible Dark Higgs Boson in and Missing Energy Final States with the Belle II Experiment

Belle-II Collaboration

Phys.Rev.Lett. 130 (2023) 7, 071804

Measurement of the  $\Lambda_c^+$  Lifetime

Belle-II Collaboration

- Phys.Rev.Lett. 130 (2023) 7, 071802  
The J-PARC heavy ion project  
K. Ozawa et al.  
EPJ Web Conf. 271 (2022) 11004
- Development of the GAGG(Ce) calorimeter for the cluster knockout reaction measurement  
R. Tsuji et al.  
RIKEN Accel. Prog. Rep. 55, 76 (2022)
- Measurement of proton elastic scattering from  $^{132}\text{Sn}$  at 300 MeV/nucleon in inverse kinematics  
T. Harada et al.  
RIKEN Accel. Prog. Rep. 55, 76 (2022)
- The ONOKORO project—Toward comprehensive understanding on clustering in heavy nuclei  
T. Uesaka, J. Zenihiro et al.  
RIKEN Accel. Prog. Rep. 55, 76 (2022)
- Recent progress and future prospects of hyperon nucleon scattering experiment  
K. Miwa, T. Nanamura, ..., T. Gogami, T.K. Harada, M. Ichikawa, M. Naruki, K.N. Suzuki, *et.al.*  
EPJ Web of Conferences 271, 04001 (2022)
- Strangeness physics programs by S-2S at J-PARC  
T. Gogami, ..., K. Ebata, T.K. Harada, ..., T. Nagae, T. Nanamura, M. Naruki, S. Takahashi, *et.al.*  
EPJ Web of Conferences 271, 11002 (2022)
- Cross-section measurement of virtual photoproduction of iso-triplet three-body hypernucleus,  $\Lambda nn$   
T. Gogami, K.N. Suzuki, *et.al.*  
EPJ Web of Conferences 271, 02002 (2022)
- High accuracy spectroscopy of 3- and 4-body  $\Lambda$  hypernuclei at Jefferson Lab  
T. Gogami, ..., K. Ebata, S. Nagafusa, K.N. Suzuki, K. Tsutsumi, E. Umezaki, *et.al.*  
EPJ Web of Conferences 271, 01001 (2022)
- X ray spectroscopy on  $\Xi^-$  atoms (J-PARC E03, E07 and future)  
T.O. Yamamoto, ..., T. Gogami, T.K. Harada, T. Nagae, *et.al.*  
EPJ Web of Conferences 271, 03001 (2022)
- High resolution spectroscopy of the “ $\Sigma N$  cusp” by using the  $d(K^-, \pi^-)$  reaction  
Y. Ichikawa, ..., T. Gogami, T.K. Harada, T. Nagae, T. Nanamura, *et.al.*  
EPJ Web of Conferences 271, 02012 (2022)

Study of  $\Lambda n$  FSI with  $\Lambda$  quasi-free productions on the  ${}^3\text{H}(e, e'K^+)X$  reaction at JLab

K. Itabashi, K.N. Suzuki, ..., T. Gogami, *et.al.*  
EPJ Web of Conferences 271, 02006 (2022)

Study of the  $\Lambda/\Sigma^0$  electroproduction in the low- $Q^2$  region at JLab

K. Okuyama, ..., K.N. Suzuki, T. Gogami, *et.al.*  
EPJ Web of Conferences 271, 02003 (2022)

J-PARC hadron experimental facility extension project

F. Sakuma, ..., T. Gogami, T. Nagae, M. Naruki, *et.al.*  
EPJ Web of Conferences 271, 11001 (2022)

Studying  $\Lambda N$  interactions through the  ${}^{208}\text{Pb}(e, e'K^+)_{\Lambda}{}^{208}\text{Tl}$  reaction

F. Garibaldi, ..., T. Gogami, *et.al.*  
EPJ Web of Conferences 271, 01007 (2022)

Preparation status of missing-mass spectroscopy for  $\Xi$  hypernuclei with S-2S magnetic spectrometer

K. Ebata, ..., T. Gogami, T.K. Harada, T. Nagae, *et.al.*  
EPJ Web of Conferences 271, 03008 (2022)

Jefferson Lab Hall C: Precision Physics at the Luminosity Frontier

J. Benesch, ..., T. Gogami, *et.al.*  
arXiv [nucl-ex] 2209, 11838 (2022)

Differential cross sections and photon beam symmetries of  $\eta$  photoproduction on the proton at  $E_{\gamma} = 1.3 - 2.4$  GeV

T. Hashimoto, ..., T. Gogami, N. Tomida, *et.al.*  
Phys. Rev. C 106, 035201 (2022)

Revealing the short-range structure of the mirror nuclei  ${}^3\text{H}$  and  ${}^3\text{He}$

S. Li, ..., T. Gogami, *et.al.*  
Nature 609, 7925, 41-45 (2022)

Measurement of differential cross sections for  $\Sigma^+p$  elastic scattering in the momentum range 0.44–0.80 GeV/ $c$

T. Nanamura, ..., T. Gogami, T.K. Harada, M. Ichikawa, M. Naruki, K.N. Suzuki, *et.al.*  
PTEP 2022, 9, 093D01 (2022)

SPring-8 LEPS2 beamline: A facility to produce a multi-GeV photon beam via laser Compton scattering

M. Muramatsu, ..., T. Gogami, N. Tomida, *et.al.*  
Nucl. Instrum. Methods, Phys. Res. Sect. A 1033, 166677 (2022)

Spectroscopic study of a possible  $\Lambda nn$  resonance and a pair of  $\Sigma NN$  states using the  $(e, e'K^+)$  reaction with a tritium target

B. Pandey, L. Tang, T. Gogami, K.N. Suzuki, *et.al.*

- Phys. Rev. C 105, L51001 (2022)  
First Missing Mass Spectroscopy of the  $^{12}\text{C}(\gamma, p)$  Reaction with Simultaneous Measurement of an  $\eta'$  Meson  
N. Tomida  
ACTA PHYSICA POLONICA A 142 (2022) 356  
Results of analysis of  $\Sigma^+p$  scattering events in J-PARC E40 experiment: differential cross sections and phase shifts of  $^3S_1$  and  $^1P_1$  states  
T. Nanamura et al.,  
EPJ Web of Conf. 271 04002
- $\Xi^-$  atomic X-ray spectroscopy using a counter-emulsion hybrid method  
M. Fujita et al.  
PTEP 2022 (2022) 12, 123D01
- Commissioning runs of J-PARC E16 experiment  
M. Ichikawa et al.  
Acta Phys.Polon.Supp. 16 (2023) 1, 1-A143
- Spectroscopy of pionic atoms in tin isotopes by  $(d, ^3\text{He})$  reaction  
S. Y. Matsumoto et al.  
RIKEN Accel. Prog. Rep. 55 (2022)
- Time resolution and high-counting rate performance of plastic scintillation counter with multiple MPPC readout  
R. Sekiya *et al.*  
Nuclear Inst. and Methods in Physics Research, A 1034 (2022) 166745
- High resolution spectroscopy of  $\Xi$  hypernuclei with active fiber target  
Takeshi K. Harada, K. Ebata, T. Gogami, S. H. Hayakawa, R. Honda, Y. Ichikawa, K. Miwa, T. Nagae, T. Nanamura, T. Takahashi, M. Ukai and T. O. Yamamoto  
EPJ Web of Conferences 271, 03006 (2022)
- Commissioning of the electron identification system for dilepton measurement in pA collisions at J-PARC  
S. Nakasuga et al.  
Nucl. Instrum. Meth. A 1041 (2022) 167335
- Measurement of  $^{12}\text{C}(n, n')$  reaction cross section to determine triple-alpha reaction rate in high-density environments  
T. Furuno, T. Doi, S. Enyo, Y. Fujikawa, Y. Hijikata, S. Okamoto, et al  
EPJ Web of Conferences 260, 11010 (2022)
- Effect of ground-state shape deformation on the isoscalar giant monopole resonance in Nd isotopes  
M. Abdullah, T. Doi, Y. Fujikawa, Y. Hijikata, S. Okamoto, et al

