

Tomoki Nosaka

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Education

- Ph.D. in Science, Kyoto University, March 2016.
Thesis title: M2-branes in M-theory and exact large N expansion
Ph.D. supervisor: Naoki Sasakura
- M.A. in Science, Kyoto University, March 2013.
- B.S. in Science, Kyoto University, March 2011.

Employment

- Assistant Professor in Shanghai Institute for Mathematics and Interdisciplinary Sciences, May 2024–Present.
- Postdoctoral Fellow in Kavli Institute for Theoretical Sciences, University of Chinese Academy of Sciences, May 2022–May 2024,
- Visiting Researcher in Kavli Institute for Theoretical Sciences, University of Chinese Academy of Sciences, February 2022–April 2022,
- Research Part-time Worker in RIKEN iTHEMS, November 2021–January 2022.
- Postdoctoral Visiting Researcher in Scuola Internazionale Superiore di Studi Avanzati (Research Fellow of Istituto Nazionale Di Fisica Nucleare), November 2019–October 2021.
- Research Fellow in Korea Institute for Advanced Study, Korea, April 2016–October 2019.
- Research Fellow in Japan Society for the Promotion of Science (JSPS), April 2013–March 2016.

Grants and Fellowships

[A1] JSPS Research Fellowship (DC1), April 2013–March 2016.

Awards

[B1] “Distinguish” level (Yōuxiùgèrén; top 20 percent) in the 2023 annual performance review in University of Chinese Academy of Sciences

Experience of Teaching

- [C1] Graduate course “Exact calculations in supersymmetric gauge theories”, Shanghai Institute for Mathematics and Interdisciplinary Sciences, October 2025–January 2026,
- [C2] Graduate course “2d Liouville Conformal Field Theory”, Shanghai Institute for Mathematics and Interdisciplinary Sciences, February 2025–July 2025,
- [C3] Graduate course “Theory on multiplet M2-branes” (Part of lecture “Introduction to M theory” with Andrey Losev), Shanghai Institute for Mathematics and Interdisciplinary Sciences, November 2024–December 2024,

- [C4] Teaching assistant of undergraduate course “Exercises in Electrodynamics 4” (Japanese), Kyoto University, October 2013-January 2014.

Invited Talks

- [D1] “Supersymmetric indices of M2-branes and M2/M5 giant graviton expansion”, in Supersymmetric Indices, Giant Gravitons, and Matrix Models”, Peng Huanwu Center for Fundamental Theory, Hefei, China, December 2025,
- [D2] “New recursion relation for M2-brane matrix models”, in “DANANG, HOLOGRAPHY AND STRING THEORY, 8TH”, Duy Tan U., Vietnam, August 2025,
- [D3] “New recursion relation for M2-brane matrix models”, in “Workshop on Mathematical Physics 2025”, Tongji U., Shanghai, China, August 2025,
- [D4] “New recursion relation for M2-brane matrix models”, in “New Frontiers in Supergravity, Strings, and Related Topics”, Peng Huanwu Center for Fundamental Theory, Hefei, China, August 2025,
- [D5] “New recursion relation for M2-brane matrix models”, in “International Congress of Basic Science”, Beijing Institute of Mathematical Sciences and Applications, Beijing, China, July 2025,
- [D6] “Superconformal index of M2-branes and giant graviton expansion”, in “7TH INTERNATIONAL CONFERENCE ON HOLOGRAPHY AND STRING THEORY IN DA NANG”, Duy Tan University, Da Nang, Vietnam, August 2024,
- [D7] “Large N expansion of superconformal indices of M2-branes”, in “Satellite conference of 2024 International Congress of Basic Science”, Shanghai Institute for Mathematics and Interdisciplinary Sciences, Shanghai, China, July 2024,
- [D8] “New recursion relation for M2-brane matrix model”, in “Frontier Forum on “Supersymmetry in Physics and Mathematics”, Qiandaohu, China, May 2024,
- [D9] “New recursion relation for M2-brane matrix model”, in “ITHEMS-YITP Workshop: Bootstrap, Localization and Holography”, Yukawa Institute for Theoretical Physics, Japan, May 2024,
- [D10] “M2-branes and q-Painleve equations” in “6TH INTERNATIONAL CONFERENCE ON HOLOGRAPHY, STRING THEORY AND SPACETIME IN DA NANG”, Da Nang, Vietnam, February 2023,
- [D11] “M2-branes and discrete Painleve systems”, in “5th International Conference on Holography, String Theory and Discrete Approach”, Hanoi, Vietnam (Zoom), August 2021,
- [D12] “Quantum chaos/integrable transition from level statistics, and its gravity dual”, in “Universality and ergodicity in quantum many-body systems”, SCGP, Stony Brook University, US, October 2019,
- [D13] “chaos/integrable transition and eternal traversable wormhole”, in “INTERNATIONAL CONFERENCE ON HOLOGRAPHY, STRING THEORY AND DISCRETE APPROACHES IN DANANG”, Vietnam, August 2019,
- [D14] “Traversable wormhole and chaotic/integrable transition”, “KMI Interdisciplinary Seminar” at Kobayashi-Maskawa Institute for the Origin of Particles and the Universe, Nagoya, Japan, July 2019,
- [D15] “M2-branes on orbifold and exact large N expansion”, in “Mini Workshop on Gauge theory and Supergravity”, Pohang, Korea, July 2016,
- [D16] “Instanton effects of M2-branes in various orbifolds”, in “Japan-Hungary bilateral program workshop”, Tokyo, Japan, November 2015.

Seminar Presentations

- [E1] SIMIS String Math Seminar: “M2-matrix models, bilinear relations and recursion relation”, Shanghai Institute for Mathematics and Interdisciplinary Sciences, Shanghai, China, 26 November 2025,
- [E2] “M2-branes matrix models, topological string and q-difference relations”, Department of Mathematics, Northwestern University, US, 22 April 2025,

- [E3] SIMIS String Math Seminar: “M2-M5 giant graviton expansions”, Shanghai Institute for Mathematics and Interdisciplinary Sciences, Shanghai, China, 18 December 2024,
- [E4] “On exact calculations in M2-brane indices”, Center for Field Theory and Particle Physics, Fudan University, Shanghai, China, 24 June 2024,
- [E5] “M2-matrix models, large N expansion and q -discrete Painleve equations”, at Shanghai Institute for Mathematics and Interdisciplinary Sciences, Shanghai, China, 17 June 2024,
- [E6] “Large N expansion of mass deformed ABJM matrix model: M2-instanton condensation and beyond”, Yau Mathematical Sciences Center at Tsinghua University, Beijing, China, 29 February 2024,
- [E7] “Weyl covariance of M2-brane matrix models and Painleve equations”, Shing-Tung Yau Center of Southeast University, Nanjing, China, 27 Jun 2023,
- [E8] “Quantum chaos and revival dynamics in coupled Sachdev-Ye-Kitaev models”, Jilin University, Changchun, China, 17 May 2023,
- [E9] “Quantum chaos and revival dynamics in coupled Sachdev-Ye-Kitaev models”, Shanghai Jiaotong University, Shanghai, China, 9 May 2023,
- [E10] “Quantum chaos and traversable wormholes in coupled Sachdev-Ye-Kitaev models”, Vietnam Academy of Science and Technology, Hanoi, Vietnam, 28 February 2023,
- [E11] “Towards Black Hole Interior by Magic of Chaos”, Entanglement Meetingg, Yukawa Institute for Theoretical Physics, 28 July 2022,
- [E12] “Black Hole Interior by Magic of Chaos”, University of Warshaw, 12 May 2022,
- [E13] “Quantum chaos, Entanglement and Black holes”, RIKEN iTHEMS Coffee Meeting, 24 December 2021,
- [E14] “M2-branes and discrete Painleve systems”, Yukawa Institute for Theoretical Physics, Kyoto, Japan, 10 December 2021,
- [E15] “M2-branes and discrete Painleve systems”, Osaka City University, 21 September 2021,
- [E16] “Quantum chaos transition in a two-site SYK model dual to an eternal traversable wormhole”, Fudan University, Shanghai, China, 18 March 2019,
- [E17] “Instanton Effects in Rank Deformed Superconformal Chern-Simons Theories from Topological Strings”, Korea Institute for Advanced Study, Seoul, Korea, 12 June 2017,
- [E18] “Instantons in rank-deformed Chern-Simons matter theory from topological string”, National Taiwan University, Taipei, Taiwan, 26 May 2017,
- [E19] “Orientifold in ABJ(M) Fermi Gas”, Korea Institute for Advanced Study, Seoul, Korea, 13 June 2016,
- [E20] “Partition function of 3d superconformal Chern-Simons theory and instanton effects in M-theory”, Kyoto University, 18 November 2015,
- [E21] “Exact large N expansion of the partition function of 3d superconformal Chern-Simons theories”, King’s College London Department of Mathematics, London, UK, February 2015,
- [E22] “Supersymmetric Yang-Mills theory on a squashed four sphere”, Tokyo Institute of Technology Particle Physics Group, Tokyo, Japan, January 2014,
- [E23] “Multiple M5 solutions in ABJM theory”, Graduate School of Mathematics, Nagoya University, Nagoya, Japan, November 2012.

Other presentations in International Conferences

(Oral)

- [F1] “Large N expansion of mass deformed ABJM matrix model: M2-instanton condensation and beyond” in KEK Theory workshop 2023, Ibaraki, Japan, December 2023,
- [F2] “M2-branes and discrete integrable systems” in 14th Taiwan String Workshop, Taipei/Kaohsiung, Taiwan, October 2023,
- [F3] “M2-branes and q-Painleve equations”, in “KEK Theory Workshop 2022”, Ibaraki, Japan (Zoom), December 2022,
- [F4] “chaos and thermodynamics of SYK traversable wormholes”, in “Strings and Fields 2020”, Kyoto, Japan (Zoom), November 2020,
- [F5] “A sharp transition in quantum chaos and thermodynamics of mass deformed SYK models”, in “4th international conference on holography, string theory and discrete approach”, Hanoi, Vietnam (Zoom), August 2020,
- [F6] “Quantum chaos transition in a two-site SYK model dual to an eternal traversable wormhole”, in “Strings and Fields 2019”, Kyoto, Japan, August 2019,
- [F7] “The Thouless time for mass-deformed SYK”, in “Strings and Fields 2018”, Kyoto, Japan, July 2018,
- [F8] “Thouless time for mass-deformed SYK”, in “Workshop on Fields, Strings and Gravity”, Seoul, Korea, May 2018,
- [F9] “Phases in mass deformed ABJM theory from Monte Carlo Simulation”, in “10th Taiwan String Workshop”, Hsinchu, Taiwan, October 2017,
- [F10] “M2-branes on orbifold and exact large N expansion”, in “Strings and Fields 2017”, Kyoto, Japan, August 2017,
- [F11] “Massive ABJM theory on three sphere and phase transition in large N limit”, in “Current Topics in String Theory: Conformal Field Theories”, Seoul, Korea, December 2016,
- [F12] “Orientifold ABJM Matrix Model: Chiral Projections and Worldsheet Instantons”, in “Strings and Fields 2016”, Kyoto, Japan, August 2016,
- [F13] “Exact large N partition function of non-conformally deformed ABJM theory”, in “Developments in String Theory and Quantum Field Theory”, Kyoto, Japan, November 2015,
- [F14] “Exact large N expansion of the partition function of 3d superconformal quiver Chern-Simons theories”, in “2nd String Theory in Greater Tokyo”, Tokyo, Japan, June 2015,
- [F15] “ABJM Membrane Instanton from Pole Cancellation Mechanism”, in “7th Taiwan String Workshop”, Taipei, Taiwan, November 2014,

(Poster)

- [F16] “Quantum chaos transition in a model dual to eternal traversable wormhole”, in “Quantum Information and String Theory 2019”, Kyoto, Japan, June 2019,
- [F17] “Symmetry Breaking in Quantum Curves and Super Chern-Simons Matrix Models”, in “Kavli Asian Winter School 2019”, Seoul, Korea, January 2019,
- [F18] “Spontaneous SUSY breaking in a Large N gauge theory”, in “EuroStrings2018”, London, UK, April 2018,
- [F19] “Complete factorization in minimal $\mathcal{N} = 4$ Chern-Simons matter theory”, in “KIAS-YITP joint workshop 2017: Strings, Gravity and Cosmology”, Kyoto, Japan, September 2017,
- [F20] “Exact partition function of quiver superconformal Chern-Simons theories”, in “KIAS-YITP Joint Workshop 2015, Geometry in Gauge Theories and String Theory”, Seoul, Korea, September 2015,
- [F21] “M-theoretical expansion for Superconformal quiver Chern-Simons theories”, in “Integrability in Gauge and String Theory 2015”, London, UK, July 2015,

- [F22] “Exact partition function of quiver superconformal Chern-Simons theories”, in “Strings 2015”, Bangalore, India, June 2015,
- [F23] “Exact Instanton Expansion of Superconformal Chern-Simons Theories from Topological Strings”, in “KEK Theory Workshop 2015”, Ibaraki, Japan, January 2015,
- [F24] “The Partition Function of Super Chern-Simons theories from Fermi Gas Approach”, in “Strings and Fields”, Kyoto, Japan, July 2014,
- [F25] “Supersymmetric Gauge Theories on a Squashed Four-Sphere”, in “KEK Theory Workshop 2014”, Ibaraki, Japan, February 2014,
- [F26] “Supersymmetric gauge theory on a squashed four sphere”, in “Cern Winter School on Supergravity, Strings, and Gauge Theory 2014”, Geneva, Switzerland, February 2014.

List of Publications/Preprints

The five representative publications are marked with “ * ”.

Total number of citations: 827 (counted in INSPIRE: <https://inspirehep.net/literature?sort=mostrecent&size=25&page=1&q=f%20ea%20tomoki%20nosaka&ui-citation-summary=true>)

(Publications on Journal)

- [G1] Hirotaka Hayashi, [Tomoki Nosaka](#) and Tadashi Okazaki, “Abelian dualities and line defect indices for 3d gauge theories”, JHEP 09 (2025) 177 [arXiv: 2506.01278 [hep-th]]. (5 citations)
[https://link.springer.com/article/10.1007/JHEP09\(2025\)177](https://link.springer.com/article/10.1007/JHEP09(2025)177)
<https://arxiv.org/abs/2506.01278>
- [G2] Naotaka Kubo, [Tomoki Nosaka](#) and Yi Pang, “Exact large N expansion of N=4 circular quiver Chern-Simons theories and squashing”, Phys. Rev. D 112 (2025), 046023 [arXiv: 2504.04402 [hep-th]]. (3 citations)
<https://journals.aps.org/prd/abstract/10.1103/x5h6-r3dd>
<https://arxiv.org/abs/2504.04402>
- [G3] Naotaka Kubo, [Tomoki Nosaka](#) and Yi Pang, “Exact large N expansion of mass deformed ABJM theory on squashed sphere”, JHEP 02 (2025) 106 [arXiv: 2411.07334 [hep-th]]. (8 citations)
[https://link.springer.com/article/10.1007/JHEP02\(2025\)106](https://link.springer.com/article/10.1007/JHEP02(2025)106)
<https://arxiv.org/abs/2411.07334>
- *[G4] Hirotaka Hayashi, [Tomoki Nosaka](#) and Tadashi Okazaki, “M2-M5 giant graviton expansions”, JHEP 12 (2024) 109 [arXiv: 2409.13239 [hep-th]]. (7 citations)
[https://link.springer.com/article/10.1007/JHEP12\(2024\)109](https://link.springer.com/article/10.1007/JHEP12(2024)109)
<https://arxiv.org/abs/2409.13239>
- [G5] Hirotaka Hayashi, [Tomoki Nosaka](#) and Tadashi Okazaki, “ADHM Wilson line defect indices”, JHEP 09 (2024) 123 [arXiv: 2406.00413 [hep-th]]. (6 citations)
[https://link.springer.com/article/10.1007/JHEP09\(2024\)123](https://link.springer.com/article/10.1007/JHEP09(2024)123)
<https://arxiv.org/abs/2406.00413>
- [G6] Naotaka Kubo and [Tomoki Nosaka](#), “Fermi gas formalism for D-type quiver Chern-Simons theory with non-uniform ranks”, JHEP 07 (2024) 079 [arXiv: 2403.12808 [hep-th]]. (4 citations)
[https://link.springer.com/article/10.1007/JHEP07\(2024\)079](https://link.springer.com/article/10.1007/JHEP07(2024)079)
<https://arxiv.org/abs/2403.12808>
- [G7] Hirotaka Hayashi, [Tomoki Nosaka](#) and Tadashi Okazaki, “Asymptotic degeneracies of M2-brane SCFTs”, Commun. Math. Phys. 405 (2024) 7, 171 [arXiv: 2307.02901 [hep-th]]. (5 citations)
<https://link.springer.com/article/10.1007/s00220-024-05031-5>
<https://arxiv.org/abs/2307.02901>
- [G8] Sanefumi Moriyama and [Tomoki Nosaka](#), “Affine Symmetries for ABJM Partition Function and its Generalization”, JHEP 05 (2024) 153 [arXiv:2312.04206 [hep-th]]. (4 citations)
[https://link.springer.com/article/10.1007/JHEP05\(2024\)153](https://link.springer.com/article/10.1007/JHEP05(2024)153)
<https://arxiv.org/abs/2312.04206>

- *[G9] [Tomoki Nosaka](#), “Large N expansion of mass deformed ABJM matrix model: M2-instanton condensation and beyond”, JHEP 03 (2024) 087 [arXiv: 2401.11484 [hep-th]]. (12 citations)
[https://link.springer.com/article/10.1007/JHEP03\(2024\)087](https://link.springer.com/article/10.1007/JHEP03(2024)087)
<https://arxiv.org/abs/2401.11484>
- [G10] Kanato Goto, Taozhi Guo, [Tomoki Nosaka](#), Masahiro Nozaki, Shinsei Ryu and Kotaro Tamaoka, “Spatial deformation of many-body quantum chaotic systems and quantum information scrambling”, Phys. Rev. B 109 (2024) 5, 054301 [arXiv: 2305.01019 [quant-ph]]. (17 citations)
<https://journals.aps.org/prb/abstract/10.1103/PhysRevB.109.054301> <https://arxiv.org/abs/2305.01019>
- [G11] Sanefumi Moriyama and [Tomoki Nosaka](#), “40 Bilinear Relations of q-Painleve VI from N=4 Super Chern-Simons Theory”, JHEP 08 (2023) 191 [arXiv:2305.03978 [hep-th]]. (8 citations)
[https://link.springer.com/article/10.1007/JHEP08\(2023\)191](https://link.springer.com/article/10.1007/JHEP08(2023)191)
<https://arxiv.org/abs/2305.03978>
- [G12] [Tomoki Nosaka](#) and Tokiro Numasawa, “On SYK traversable wormhole with imperfectly correlated disorders”, JHEP 04 (2023) 145 [arXiv:2210.13123 [hep-th]]. (3 citations)
[https://link.springer.com/article/10.1007/JHEP04\(2023\)145](https://link.springer.com/article/10.1007/JHEP04(2023)145)
<https://arxiv.org/abs/2210.13123>
- [G13] Kanato Goto, [Tomoki Nosaka](#) and Masahiro Nozaki, “Probing chaos by magic monotones,” Phys. Rev. D 106 (2022), 126009 [arXiv:2112.14593 [hep-th]]. (41 citations)
<https://journals.aps.org/prd/abstract/10.1103/PhysRevD.106.126009>
<https://arxiv.org/abs/2112.14593>
- *[G14] Giulio Bonelli, Fran Globek, Naotaka Kubo, [Tomoki Nosaka](#) and Alessandro Tanzini, “M2-branes and q-Painleve equations,” Lett. Math. Phys. 112 (2022) 109 [arXiv:2202.10654 [hep-th]]. (16 citations)
<https://link.springer.com/article/10.1007/s11005-022-01597-0>
<https://arxiv.org/abs/2202.10654>
- [G15] Hirotaka Hayashi, [Tomoki Nosaka](#) and Tadashi Okazaki, “Dualities and flavored indices of M2-brane SCFTs,” JHEP 10 (2022) 023 [arXiv:2206.05362 [hep-th]]. (17 citations)
[https://link.springer.com/article/10.1007/JHEP10\(2022\)023](https://link.springer.com/article/10.1007/JHEP10(2022)023)
<https://arxiv.org/abs/2206.05362>
- *[G16] [Tomoki Nosaka](#), “SU(N) q-Toda equations from mass deformed ABJM theory,” JHEP 06 (2021) 060 [arXiv:2012.07211 [hep-th]]. (13 citations)
[https://link.springer.com/article/10.1007/JHEP06\(2021\)060](https://link.springer.com/article/10.1007/JHEP06(2021)060)
<https://arxiv.org/abs/2012.07211>
- [G17] [Tomoki Nosaka](#) and Tokiro Numasawa, “Chaos exponents of SYK traversable wormholes,” JHEP 02 (2021) 150 [arXiv:2009.10759 [hep-th]]. (18 citations)
[https://link.springer.com/article/10.1007/JHEP02\(2021\)150](https://link.springer.com/article/10.1007/JHEP02(2021)150)
<https://arxiv.org/abs/2009.10759>
- [G18] [Tomoki Nosaka](#) and Tokiro Numasawa, “Quantum Chaos, Thermodynamics and Black Hole Microstates in the mass deformed SYK model,” JHEP 08 (2020) 081 [arXiv:1912.12302[hep-th]]. (15 citations)
[https://link.springer.com/article/10.1007/JHEP08\(2020\)081](https://link.springer.com/article/10.1007/JHEP08(2020)081)
<https://arxiv.org/abs/1912.12302>
- [G19] Antonio M. García-García, [Tomoki Nosaka](#), Dario Rosa, Jacobus J. M. Verbaarschot, “Quantum chaos transition in a two-site SYK model dual to an eternal traversable wormhole”, 10.1103/PhysRevD.100.026002 [arXiv:1901.06031[hep-th]]. (95 citations)
<https://journals.aps.org/prd/abstract/10.1103/PhysRevD.100.026002>
<https://arxiv.org/abs/1901.06031>
- [G20] Naotaka Kubo, Sanefumi Moriyama, [Tomoki Nosaka](#), “Symmetry Breaking in Quantum Curves and Super Chern-Simons Matrix Models”, JHEP 1901 (2019) 210 [arXiv:1811.06048 [hep-th]]. (22 citations)
[https://link.springer.com/article/10.1007/JHEP01\(2019\)210](https://link.springer.com/article/10.1007/JHEP01(2019)210)
<https://arxiv.org/abs/1811.06048>

- [G21] Masazumi Honda, [Tomoki Nosaka](#), Kazuma Shimizu and Seiji Terashima, “Supersymmetry Breaking in a Large N Gauge Theory with Gravity Dual”, JHEP **1903** (2019) 159 [arXiv:1807.08874 [hep-th]]. (14 citations)
[https://dx.doi.org/10.1007/JHEP03\(2019\)159](https://dx.doi.org/10.1007/JHEP03(2019)159)
<https://arxiv.org/abs/1807.08874>
- [G22] [Tomoki Nosaka](#), Dario Rosa and Junggi Yoon, “The Thouless time for mass-deformed SYK”, JHEP **1809** (2018) 041 [arXiv:1804.09934 [hep-th]]. (58 citations)
<https://link.springer.com/article/10.1007%2FJHEP09%282018%29041>
<https://arxiv.org/abs/1804.09934>
- [G23] [Tomoki Nosaka](#) and Shuichi Yokoyama, “Index and duality of minimal $\mathcal{N} = 4$ Chern-Simons-matter theories”, JHEP **1806** (2018) 028 [arXiv:1804.04639 [hep-th]]. (10 citations)
<https://dx.doi.org/10.1007/JHEP06%282018%29028>
<https://arxiv.org/abs/1804.04639>
- [G24] Sanefumi Moriyama, [Tomoki Nosaka](#) and Katsuya Yano, “Superconformal Chern-Simons Theories from del Pezzo Geometries”, JHEP **1711** (2017) 089 [arXiv:1707.02420 [hep-th]]. (23 citations)
<https://link.springer.com/article/10.1007%2FJHEP11%282017%29089>
<https://arxiv.org/abs/1707.02420>
- [G25] [Tomoki Nosaka](#) and Shuichi Yokoyama, “Complete factorization in minimal $\mathcal{N} = 4$ Chern-Simons-matter theory”, JHEP **1801** (2018) 001 [arXiv:1706.07234 [hep-th]]. (30 citations)
<https://link.springer.com/article/10.1007%2FJHEP01%282018%29001>
<https://arxiv.org/abs/1706.07234>
- [G26] Sanefumi Moriyama, Shota Nakayama and [Tomoki Nosaka](#), “Instanton Effects in Rank Deformed Superconformal Chern-Simons Theories from Topological Strings”, JHEP **1708** (2017) 003 [arXiv:1704.04358[hep-th]]. (28 citations)
<https://link.springer.com/article/10.1007%2FJHEP08%282017%29003>
<https://arxiv.org/abs/1704.04358>
- [G27] [Tomoki Nosaka](#), Kazuma Shimizu and Seiji Terashima, “Mass Deformed ABJM Theory on Three Sphere in Large limit”, JHEP **1703** (2017) 121 [arXiv:1608.02654[hep-th]]. (23 citations)
<https://link.springer.com/article/10.1007%2FJHEP03%282017%29121>
<https://arxiv.org/abs/1608.02654>
- [G28] Sanefumi Moriyama and [Tomoki Nosaka](#), “Orientifold ABJM Matrix Model: Chiral Projections and Worldsheet Instantons”, JHEP **1606** (2016) 068 [arXiv:1603.00615[hep-th]]. (30 citations)
<https://dx.doi.org/10.1007/JHEP06%282016%29068>
<https://arxiv.org/abs/1603.00615>
- [G29] [Tomoki Nosaka](#), Kazuma Shimizu and Seiji Terashima, “Large N behavior of mass deformed ABJM theory”, JHEP **1603** (2016) 063 [arXiv:1512.00249[hep-th]]. (28 citations)
<https://dx.doi.org/10.1007/JHEP03%282016%29063>
<https://arxiv.org/abs/1512.00249>
- *[G30] [Tomoki Nosaka](#), “Instanton effects in ABJM theory with general R-charge assignments”, JHEP **1603** (2016) 059 [arXiv:1512.02862[hep-th]]. (61 citations)
<https://dx.doi.org/10.1007/JHEP03%282016%29059>
<https://arxiv.org/abs/1512.02862>
- [G31] Sanefumi Moriyama and [Tomoki Nosaka](#), “Superconformal Chern-Simons Partition Functions of Affine D-type Quiver from Fermi Gas,” JHEP **1509** (2015) 054 [arXiv:1504.07710[hep-th]]. (38 citations)
<https://link.springer.com/article/10.1007%2FJHEP09%282015%29054>
<https://arxiv.org/abs/1504.07710>
- [G32] Sanefumi Moriyama and [Tomoki Nosaka](#), “Exact Instanton Expansion of Superconformal Chern-Simons Theories from Topological Strings,” JHEP **1505** (2015) 022 [arXiv:1412.6243[hep-th]]. (46 citations)
<https://link.springer.com/article/10.1007%2FJHEP05%282015%29022>
<https://arxiv.org/abs/1412.6243>

- [G33] Sanefumi Moriyama and [Tomoki Nosaka](#), “ABJM membrane instanton from a pole cancellation mechanism,” Phys. Rev. D **92** (2015) 2, 026003 [arXiv:1410.4918[hep-th]]. (27 citations)
<https://dx.doi.org/10.1103/PhysRevD.92.026003>
<https://arxiv.org/abs/1410.4918>
- [G34] Sanefumi Moriyama and [Tomoki Nosaka](#), “Partition Functions of Superconformal Chern-Simons Theories from Fermi Gas Approach,” JHEP **1411** (2014) 164 [arXiv:1407.4268[hep-th]]. (53 citations)
<https://link.springer.com/article/10.1007%2FJHEP11%282014%29164>
<https://arxiv.org/abs/1407.4268>
- [G35] [Tomoki Nosaka](#) and Seiji Terashima, “Supersymmetric Gauge Theories on a Squashed Four-Sphere,” JHEP **1312** (2013) 001 [arXiv:1310.5939[hep-th]]. (29 citations)
<https://link.springer.com/article/10.1007%2FJHEP12%282013%29001>
<https://arxiv.org/abs/1310.5939>
- [G36] [Tomoki Nosaka](#) and Seiji Terashima, “M5-branes in ABJM theory and Nahm equation,” Phys. Rev. D **86** (2012) 125027 [arXiv:1208.1108[hep-th]]. (7 citations)
<https://dx.doi.org/10.1103/PhysRevD.86.125027>
<https://arxiv.org/abs/1208.1108>

(Preprints)

- [G37] Bin He (賀彬) and [Tomoki Nosaka](#), “New recursion relations for M2-brane matrix models”, [arXiv: 2509.15801 [hep-th]]. (0 citations)
<https://arxiv.org/abs/2509.15801>
- [G38] Hirotaka Hayashi, [Tomoki Nosaka](#) and Tadashi Okazaki, “Kac-Moody algebras from M5-giants”, [arXiv: 2508.20663 [hep-th]]. (2 citations)
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(Proceedings)

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