

Curriculum Vitae

So Chigusa

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Personal Data

First Name: So
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Date of Birth: May 22, 1992
Place of Birth: Kobe, Japan
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Education

| Date | Degree | University |
|---------------|-------------------------------|---------------------|
| Mar. 24, 2017 | Master of Science (Physics) | University of Tokyo |
| Mar. 2015 | Bachelor of Science (Physics) | University of Tokyo |

Professional experience

Apr. 2015 - Mar. 2020: Ph.D. Student, Department of Physics, University of Tokyo
(Dr. Takeo Moroi)

Teaching experience

Apr. 2015 - Sep. 2015: Teaching Assistant for Undergraduate Class “Quantum Mechanics II”
at Department of Physics, University of Tokyo

Grants

Apr. 2017 - Mar. 2020: JSPS, Research Fellowships for Young Scientists (DC1)
Amount: 2800000 JPY
Oct. 2015 - Mar. 2020: MEXT, Program for Leading Graduate Schools

Honors and Awards

1. Best Poster Award @ HPNP 2019

Publications

- [1] S. Chigusa, T. Moroi and K. Nakayama, *Signals of Axion Like Dark Matter in Time Dependent Polarization of Light*, 1911.09850.
- [2] S. Chigusa, T. Moroi and Y. Shoji, *Bounce Configuration from Gradient Flow*, 1906.10829.
- [3] S. Chigusa, S. Kasuya and K. Nakayama, *Novel Flavon Stabilization with Trimaximal Neutrino Mixing*, *Phys. Rev.* **D100** (2019) 015030, [1905.11517].
- [4] T. Abe, S. Chigusa, Y. Ema and T. Moroi, *Indirect studies of electroweakly interacting particles at 100 TeV hadron colliders*, *Phys. Rev.* **D100** (2019) 055018, [1904.11162].
- [5] S. Asai, S. Chigusa, T. Kaji, T. Moroi, M. Saito, R. Sawada et al., *Studying gaugino masses in supersymmetric model at future 100 TeV pp collider*, *JHEP* **05** (2019) 179, [1901.10389].

- [6] S. Chigusa, Y. Ema and T. Moroi, *Probing electroweakly interacting massive particles with Drell- Yan process at 100 TeV hadron colliders*, *Phys. Lett.* **B789** (2019) 106–113, [1810.07349].
- [7] S. Chigusa, S. Kasuya and K. Nakayama, *Flavon Stabilization in Models with Discrete Flavor Symmetry*, *Phys. Lett.* **B788** (2019) 494–499, [1810.05791].
- [8] S. Chigusa and K. Nakayama, *Anomalous Discrete Flavor Symmetry and Domain Wall Problem*, *Phys. Lett.* **B788** (2019) 249–255, [1808.09601].
- [9] S. Chigusa, T. Moroi and Y. Shoji, *Decay Rate of Electroweak Vacuum in the Standard Model and Beyond*, *Phys. Rev.* **D97** (2018) 116012, [1803.03902].
- [10] S. Chigusa, T. Moroi and Y. Shoji, *State-of-the-Art Calculation of the Decay Rate of Electroweak Vacuum in the Standard Model*, *Phys. Rev. Lett.* **119** (2017) 211801, [1707.09301].
- [11] S. Chigusa and T. Moroi, *Bottom-Tau Unification in Supersymmetric $SU(5)$ Models with Extra Matters*, *PTEP* **2017** (2017) 063B05, [1702.00790].
- [12] S. Chigusa and T. Moroi, *Bottom-tau unification in a supersymmetric model with anomaly-mediation*, *Phys. Rev.* **D94** (2016) 035016, [1604.02156].

Invited Seminar Presentations

1. “Flowing to the Bounce”, Tohoku University, October 2019.
2. “Indirect Studies of Electroweakly Interacting Particles at 100 TeV Hadron Colliders”, Osaka University, July 2019.
3. “Indirect Studies of Electroweakly Interacting Particles at 100 TeV Hadron Colliders”, University of Florida, May 2019.
4. “Indirect Studies of Electroweakly Interacting Particles at 100 TeV Hadron Colliders”, Florida State University, May 2019.
5. “Indirect Studies of Electroweakly Interacting Particles at 100 TeV Hadron Colliders”, KEK, April 2019.
6. “Solutions to Domain Wall Problem in Models with Discrete Flavor Symmetry”, Hokkaido University, January 2019.
7. “Probing Electroweakly Interacting Massive Particles with Drell-Yan Process at 100 TeV Hadron Colliders”, Nagoya University, October 2018.

Presentations at International Conferences

(Oral)

1. “Indirect Studies of Electroweakly Interacting Particles at 100 TeV Hadron Colliders”, Summer Institute 2019, Gangneung, Korea, August 2019.
2. “Flowing to the Bounce”, New Higgs Working Group 26, Osaka, August 2019.
3. “Indirect Studies of Electroweakly Interacting Particles at 100 TeV Hadron Colliders”, SUSY 2019, Texas, May 2019.
4. “Indirect Studies of Electroweakly Interacting Particles at 100 TeV Hadron Colliders”, Pheno 2019, Pittsburgh, May 2019.
5. “Flavon Stabilization in Models with Discrete Flavor Symmetry”, KEK-PH 2018 winter, Tsukuba, December 2018.
6. “Decay Rate of the Electroweak Vacuum in the Standard Model and Beyond”, Planck 2018, Bonn, May 2018.
7. “Bottom-Tau Unification in Supersymmetric Models”, New Physics Forum, IPMU, February 2017.
8. “Bottom-Tau unification in Supersymmetric Model with Anomaly-Mediation”, SUSY 2016, Melbourne, July 2016.

(Poster)

1. “Probing Electroweakly Interacting Massive Particles with Precision Measurements at 100 TeV Hadron Colliders”, HPNP2019, Osaka, February 2019.

Presentations at Domestic Conferences

(Oral)

1. “Flavon Stabilization without Domain Wall Problem in Discrete Flavor Symmetry Models”, Neutrino Oscillation and Flavor Physics, Nagoya, June 2019.
2. “Zero Mode Problem in the Calculation of Decay Rate of the SM Electroweak vacuum”, JPS 2018, Shinshu, September 2018.
3. “Bottom-Tau unification in Supersymmetric Model with Anomaly-Mediation”, JPS 2016, Miyazaki, September 2016.

(Poster)

1. “Indirect Search of WIMP Dark Matter at Future 100 TeV Collider”, PPP 2018, Kyoto, August 2018.
2. “Bottom Tau Unification in Supersymmetric Models”, PPP 2017, Kyoto, August 2017.

Poster Presentations at International Summer Schools

1. “Decay Rate of the Electroweak Vacuum in the Standard Model and Beyond”, Cargese Summer School 2018, July 2018.
2. “Bottom Tau Unification in Supersymmetric Models”, Les Houches Summer School 2017, July 2017.