Curriculum Vitae

So Chigusa

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Personal Data

First Name:	So
Last Name:	Chigusa
Date of Birth:	May 22, 1992
Place of Birth:	Kobe, Japan
Nationality:	Japanese
Age:	27
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Affiliation:	High Energy Accelerator Research Organization (KEK)
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Education

Date	Degree	Institution
Mar. 23, 2020	Doctor of Philosophy (Physics)	University of Tokyo
Mar. 23, 2017	Master of Science (Physics)	University of Tokyo
Mar. 25, 2015	Bachelor of Science (Physics)	University of Tokyo

Professional experience

Apr. 2020 – :	Postdoc, High Energy Accelerator Research Organization (KEK)
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. 2020 – :	JSPS, Research Fellowships for Young Scientists (PD)
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, *Detecting Light Boson Dark Matter through Conversion into Magnon*, 2001.10666.

[2] S. Chigusa, Y. Hosomi, T. Moroi and M. Saito, *Determining Wino Lifetime in Supersymmetric Model at Future 100 TeV pp Colliders*, 1912.00592.

[3] S. Chigusa, T. Moroi and K. Nakayama, *Signals of Axion Like Dark Matter in Time Dependent Polarization of Light*, 1911.09850.

[4] S. Chigusa, T. Moroi and Y. Shoji, *Bounce Configuration from Gradient Flow*, *Phys. Lett.* **B800** (2020) 135115, [1906.10829].

[5] S. Chigusa, S. Kasuya and K. Nakayama, *Novel Flavon Stabilization with Trimaximal Neutrino Mixing*, *Phys. Rev.* **D100** (2019) 015030, [1905.11517].

[6] 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].

[7] 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].

[8] 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].

[9] S. Chigusa, S. Kasuya and K. Nakayama, *Flavon Stabilization in Models with Discrete Flavor Symmetry*, *Phys. Lett.* **B788** (2019) 494–499, [1810.05791].

[10] S. Chigusa and K. Nakayama, *Anomalous Discrete Flavor Symmetry and Domain Wall Problem*, *Phys. Lett.* **B788** (2019) 249–255, [1808.09601].

[11] 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].

[12] 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].

[13] S. Chigusa and T. Moroi, *Bottom-Tau Unification in Supersymmetric SU(5) Models with Extra Matters*, *PTEP* **2017** (2017) 063B05, [1702.00790].

[14] 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. "Detecting Light Boson Dark Matter through Conversion into Magnon (Online)", 2020/6/22, Nagoya University
2. "Detecting Light Boson Dark Matter through Conversion into Magnon (Online)", 2020/6/2, Kyushu University
3. "Detecting Light Boson Dark Matter through Conversion into Magnon (Online)", 2020/5/20, IBS
4. "Detecting Light Boson Dark Matter through Conversion into Magnon (Online)", 2020/5/14, TDLI and INPAC
5. "Flowing to the Bounce", 2019/10/24, Tohoku University
6. "Indirect Studies of Electroweakly Interacting Particles at 100 TeV Hadron Colliders", 2019/7/23, Osaka University
7. "Indirect Studies of Electroweakly Interacting Particles at 100 TeV Hadron Colliders", 2019/5/16, University of Florida
8. "Indirect Studies of Electroweakly Interacting Particles at 100 TeV Hadron Colliders", 2019/5/10, Florida State University
9. "Indirect Studies of Electroweakly Interacting Particles at 100 TeV Hadron Colliders", 2019/4/9, KEK
10. "Solutions to Domain Wall Problem in Models with Discrete Flavor Symmetry", 2019/1/11, Hokkaido University
11. "Probing Electroweakly Interacting Massive Particles with Drell-Yan Process at 100 TeV Hadron Colliders", 2018/10/16, Nagoya University

Presentations at International Conferences

(Oral)

1. "Flowing to the Bounce", 2020/1/14, Berkeley Week, IPMU
2. "Indirect Studies of Electroweakly Interacting Particles at 100 TeV Hadron Colliders", 2019/8/20, SI2019, Gangneung, Korea
3. "Flowing to the Bounce", 2019/8/9, NHWG26, Osaka
4. "Indirect Studies of Electroweakly Interacting Particles at 100 TeV Hadron Colliders", 2019/5/22, SUSY 2019, Texas
5. "Indirect Studies of Electroweakly Interacting Particles at 100 TeV Hadron Colliders", 2019/5/6, Pheno 2019, Pittsburgh
6. "Flavon Stabilization in Models with Discrete Flavor Symmetry", 2018/12/6, KEK-PH 2018 winter, Tsukuba
7. "Decay Rate of the Electroweak Vacuum in the Standard Model and Beyond", 2018/5/24, Planck 2018, Bonn
8. "Bottom-Tau Unification in Supersymmetric Models", 2017/2/6, New Physics Forum, IPMU
9. "Bottom-Tau unification in Supersymmetric Model with Anomaly-Mediation", 2016/7/05, SUSY 2016, Melbourne

(Poster)

1. "Probing Electroweakly Interacting Massive Particles with Precision Measurements at 100 TeV Hadron Colliders (poster)", 2019/2/21, HPNP2019, Osaka

Presentations at Domestic Conferences

(Oral)

1. “マグノンを用いた軽いボソン暗黒物質の直接探索”, 2020/6/2, 新学術領域「地下宇宙」合同研究会, Online
2. “Flavon Stabilization without Domain Wall Problem in Discrete Flavor Symmetry Models (in Japanese)”, 2019/6/11, Neutrino Oscillation and Flavor Physics, Nagoya
3. “Zero Mode Problem in the Calculation of Decay Rate of the SM Electroweak vacuum”, 2018/9/15, JPS 2018, Shinshu
4. “Bottom-Tau unification in Supersymmetric Model with Anomaly-Mediation”, 2016/9/21, JPS 2016, Miyazaki

(Poster)

1. “Indirect Search of WIMP Dark Matter at Future 100 TeV Collider (Poster)”, 2018/8/9, PPP 2018, Kyoto
2. “Bottom Tau Unification in Supersymmetric Models (Poster)”, 2017/8/3, PPP 2017, Kyoto

Poster Presentations at International Summer Schools

1. “Decay Rate of the Electroweak Vacuum in the Standard Model and Beyond”, 2018/7/12, Cargese Summer School 2018, Kyoto
2. “Bottom Tau Unification in Supersymmetric Models (Poster)”, 2017/7/4, Les Houches Summer School 2017, Kyoto