

# Postdocs working on Particle Physics

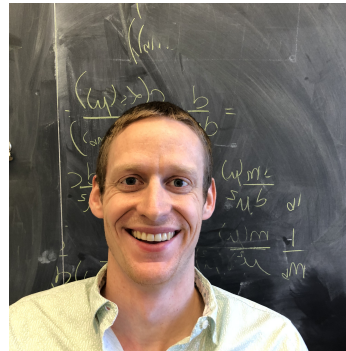
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## Lattice QCD

**William Jay**

PhD: U. of Colorado 2018

Fermilab: 2018 - 2021



V. Ayyar, M. F. Golterman, D. C. Hackett, W. Jay, E. T. Neil, Y. Shamir and B. Svetitsky, “Radiative Contribution to the Composite-Higgs Potential in a Two-Representation Lattice Model,” *Phys. Rev. D* , 1903.02535 [hep-lat].

V. Ayyar, T. DeGrand, D. C. Hackett, W. I. Jay, E. T. Neil, Y. Shamir and B. Svetitsky, “Partial compositeness and baryon matrix elements on the lattice,” *Phys. Rev. D* , [arXiv:1812.02727 [hep-ph]].

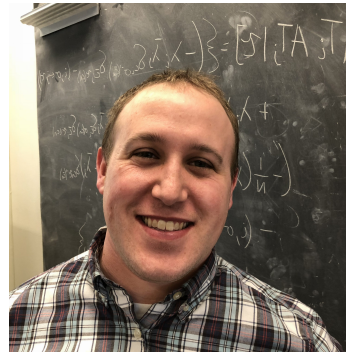
D. C. Hackett, K. Howe, C. Hughes, W. Jay, E. T. Neil and J. N. Simone, “Digitizing Gauge Fields: Lattice Monte Carlo Results for Future Quantum Computers,” *Phys. Rev. A* [arXiv:1811.03629 [quant-ph]].

# Perturbative QCD - collider phenomenology

**Josh Isaacson**

**PhD: Michigan State 2017**

**Fermilab: 2017 - 2020**



**M. Hussein, J. Isaacson and J. Huston, “A study of the role of the PDF uncertainty on the LHC  $W$ -boson mass measurement,” J. Phys. G [arXiv:1905.00110 [hep-ph]].**

**B. A. Dobrescu, R. M. Harris and J. Isaacson, “Ultraheavy resonances at the LHC: beyond the QCD background,” arXiv:1810.09429 [hep-ph].**

**C. Willis, R. Brock, D. Hayden, T. J. Hou, J. Isaacson, C. Schmidt and C. P. Yuan, “New method for reducing parton distribution function uncertainties in the high-mass Drell-Yan spectrum,” Phys. Rev. D [arXiv:1809.09481 [hep-ex]].**

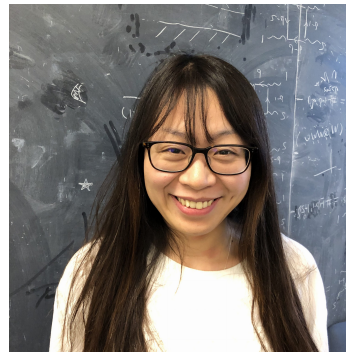
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# Beyond the Standard Model

**Christina Gao**

**PhD: 2018 UC Davis**

**Fermilab: 2018 - 2021**



**C. Gao, A. Shayegan Shirazi, J. Terning, “Collider Phenomenology of a Gluino Continuum,”  
arXiv:1909.04061 [hep-ph]**

**C. Gao, M. A. Luty and N. A. Neill, “Almost Inert Higgs Bosons at the LHC,” JHEP  
[arXiv:1812.08179 [hep-ph]]**

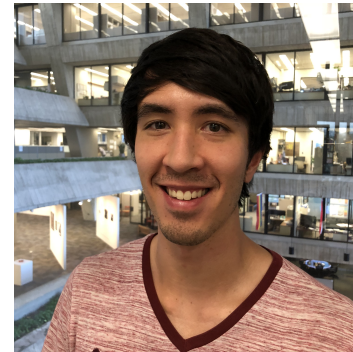
# Beyond the Standard Model

**Matthew Low**

PhD: 2015 U. Chicago

postdoc: Princeton IAS 2015 - 2018

Fermilab: 2018 - 2021



R. T. D'Agnolo and M. Low, "Disorder and mimesis at hadron colliders,"  
JHEP [arXiv:1902.05535 [hep-ph]].

+ 2 reports as postdoc @ Fermilab

**Ying-Ying Li**

PhD: 2019 Hong Kong U.

Fermilab: 2019 - 2022

# Neutrino physics

**Kevin Kelly**

**PhD: Northwestern U. 2018**

**Fermilab: 2018 - 2021**



**R. Harnik, K. J. Kelly and P. A. Machado, “Prospects of Measuring Oscillated Decay-at-Rest Neutrinos at Long Baselines,” arXiv:1911.05088 [hep-ph].**

**N. Blinov, K. J. Kelly, G. Z. Krnjaic, S. D. McDermott, “Constraining the Self-Interacting Neutrino Interpretation of the Hubble Tension,” PRL [1905.02727 [astro-ph.CO]].**

**A. De Gouvea, K. J. Kelly, G. V. Stenico and P. Pasquini, “Physics with Beam Tau-Neutrino Appearance at DUNE,” Phys. Rev. D [arXiv:1904.07265 [hep-ph]].**

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# Neutrino physics

**Jessica Turner**

**PhD: Durham 2017**

**Fermilab: 2017 - 2020**



**G. Barenboim, J. Turner and Y. L. Zhou, “Light Neutrino Masses from Gravitational Condensation: the Schwinger-Dyson Approach,” arXiv:1909.04675 [hep-ph].**

**J. Berger, A. J. Long and J. Turner, “Phase of confined electroweak force in the early Universe,” Phys. Rev. D [arXiv:1906.05157 [hep-ph]].**

**I. Brivio, K. Moffat, S. Pascoli, S. T. Petcov and J. Turner, “Leptogenesis in the Neutrino Option,” JHEP [arXiv:1905.12642 [hep-ph]].**

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## Neutrino physics - Joint appointment with Argonne

**Noemi Rocco**

**PhD: 2016 U. of Rome**

**Postdoc: 2016-2017 U. of Valencia,  
2017 - 2018 Surrey U.**

**Fermilab/NWU: 2018 - 2021**



**C. Barbieri, N. Rocco and V. Som, “Lepton Scattering from  $^{40}\text{Ar}$  and Ti in the Quasielastic Peak Region,” arXiv:1907.01122 [nucl-th].**

**N. Rocco, S. X. Nakamura, T. S. H. Lee and A. Lovato, “Electroweak Pion-Production on Nuclei within the Extended Factorization Scheme,” Phys. Rev. C [1907.01093 [nucl-th]].**

**J. E. Sobczyk, N. Rocco and J. Nieves, “Polarization of Tau in Quasielastic (Anti)Neutrino Scattering: The Role of Spectral Functions,” Phys. Rev. C [arXiv:1906.05656 [nucl-th]].**

**+ 3 more journal articles as postdoc @ Fermilab/Argonne**

## Neutrino physics - Joint appointments with Northwestern Univ.

**Yuber Perez-Gonzalez**

**PhD: 2018 U. of Sao Paulo**

**Fermilab/NWU: 2018 - 2021**



**C. Lunardini and Y. F. Perez Gonzalez, “Dirac and Majorana neutrino signatures of primordial black holes,” arXiv:1910.07864 [hep-ph].**

**K. J. Kelly, P. A. Machado, I. Martinez Soler, S. J. Parke and Y. F. Perez Gonzalez, “Sub-GeV Atmospheric Neutrinos and CP-Violation in DUNE,” Phys. Rev. Lett. [arXiv:1904.02751]**

**P. Ballett, M. Hostert, S. Pascoli, Y. F. Perez-Gonzalez, Z. Tabrizi and R. Zukanovich Funchal, “Z’s in neutrino scattering at DUNE,” Phys. Rev. D [arXiv:1902.08579 [hep-ph]].**

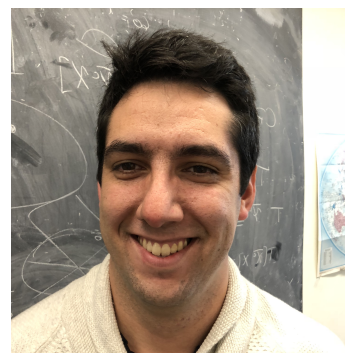


## Neutrino physics - Joint appointments with Northwestern Univ.

**Ivan Martnez Soler**

**PhD: 2018 Madrid, IFT**

**Fermilab/NWU: 2018 - 2021**



**A. de Gouvea, I. Martinez-Soler and M. Sen, “On the Impact of Neutrino Decays on the Supernova Neutronization-Burst Flux,” arXiv:1910.01127 [hep-ph].**

**I. Martinez-Soler and H. Minakata, “On the Nature of Correlation between Neutrino-SM CP Phase and Unitarity Violating New Physics Parameters,” arXiv:1908.04855 [hep-ph].**

**I. Esteban, J. Lopez-Pavon, I. Martinez-Soler and J. Salvado, “Looking at the Axionic Dark Sector with ANITA,” arXiv:1905.10372 [hep-ph].**

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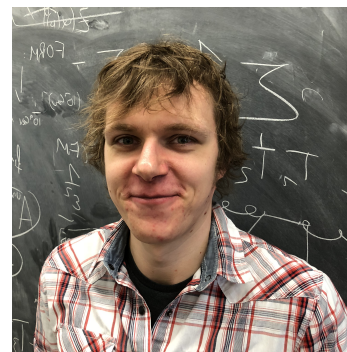
## Perturbative QCD - Joint appointment with IIT

**Tobias Neumann**

**PhD: 2015 Wuppertal U.**

**Postdoc: 2015-2017 SUNY Buffalo**

**Fermilab/IIT: 2017 - 2020**



**J. Campbell and T. Neumann, “Precision Phenomenology with MCFM,” arXiv:1909.09117 [hep-ph].**

**J. Artz, R. Harlander, F. Lange, T. Neumann, M. Prausa, “Results and techniques for higher order calculations within the gradient-flow formalism,” JHEP [arXiv:1905.00882 [hep-lat]].**

**T. Neumann and Z. E. Sullivan, “Off-Shell Single-Top-Quark Production in the Standard Model Effective Field Theory,” JHEP [arXiv:1903.11023 [hep-ph]].**

**+ 2 more journal articles as postdoc @ Fermilab/Argonne**

# Beyond the Standard Model - Humboldt Foundation

**Claudius Krause**

PhD: 2016 Munich U.

postdoc: 2016 - 2018 Valencia U

Fermilab: 2018 - 2021



I. Rosell, C. Krause, A. Pich and J. J. Sanz-Cillero, “Effective theories and resonances in strongly-coupled electroweak symmetry breaking scenarios,” arXiv:1910.01839 [hep-ph].

G. Buchalla, A. Celis, C. Krause and J. N. Toelstede, “Master Formula for One-Loop Renormalization of Bosonic SMEFT Operators,” arXiv:1904.07840 [hep-ph].

C. Krause, A. Pich, I. Rosell, J. Santos and J. J. Sanz-Cillero, “Colorful Imprints of Heavy States in the Electroweak Effective Theory,” JHEP [arXiv:1810.10544 [hep-ph]]

+ one more journal articles as postdoc @ Fermilab

## BSM - Joint appointment with U Chicago – Humboldt (2020)

**Elina Fuchs**

PhD: 2015 DESY

Postdoc: 2015-2019 Weizmann Inst.

Fermilab/U Chicago: 2019 - 2022