Aaron Fenyes
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Education

Ph.D. Mathematics. University of Texas at Austin, 2016.

M.S. Theoretical Physics. Perimeter Scholars International, 2010.

B.S. Mathematical Sciences and Honors Physics. University of Michigan (Ann Arbor), 2009.

Employment

Postdoctoral fellow at the University of Toronto, 2016 – present.

Saturday Morning Math Group coordinator at UT Austin, 2014.

Mentor at Canada/USA Mathcamp, summer 2013 – 2014.

Instructor at Duke TIP (Trinity University site), summer 2012.

Papers and preprints

Preprints are marked with ☙ *.*

☙ A. Fenyes, "A dynamical perspective on shear-bend coordinates." 2018.
  A fork of my Ph.D. thesis. `arXiv:1510.05757v2`

A. Fenyes, "Warping geometric structures and abelianizing $SL_2 \mathbb{R}$ local systems." Ph.D. thesis, 2016.
  `https://repositories.lib.utexas.edu/handle/2152/41629`

A. Fenyes, "Limitations on cloning in classical mechanics." J. Math. Phys. 53, 012902 (2012).

Research talks and posters

Posters are marked with ✧ *. They can be found on my web site, at*

`http://www.math.toronto.edu/afenyes/writing.html`.

"Hyperbolic surfaces as singular flat surfaces." University of Maryland: geometry-topology seminar, 2018.

"Dynamical descriptions of surface group representations." MIT: Lie theory and mathematical physics, 2017.

"A reason for representation theorists to play billiards." Perimeter Institute: math physics seminar, 2017.

"Spectral networks craft hour." JMM special session on group actions and geometric structures, 2017.

"Abelianizing geometric structures and other local systems." UT Austin: thesis defense, 2016.

"Not-quite-Anosov representations." Caltech: Workshop on Surface Group Representations, 2016.

"Deflating hyperbolic surfaces." Joint Mathematics Meetings, 2016.

"Wall-crossing your way around Teichmüller space." Fields Institute: Geometric Structures Lab seminar, 2015.

"A reason for representation theorists to play billiards." USC: Geometry & Topology Seminar, 2015.

✦ "Potentially cluster-like coordinates from dense spectral networks." CRM: Positive Grassmannians, 2015.

"Warping structures, warping sheaves." UT Austin candidacy talk, 2014.

Teaching talks and activities

"A friendlier introduction to Feynman diagrams." University of Toronto postdoc seminar, 2017.

"The Geometry of The Night Sky (or, An Ape Pointing at The Stars)." Joint Mathematics Meetings, 2015.

"A tour of singular integrable systems." Student Geometry Seminar, 2014.

"Braided Feynman diagrams for braided spaces." Geometry & String Theory seminar, 2014.

"Soundscape." UT Austin Undergraduate Math Club, 2014.

"Pseudoholomorphic curves are unexpectedly friendly." Gromov-Witten Theory working group, 2014.

"An informal introduction to two-dimensional extended TFTs." Student seminar on Chern-Simons theory, 2014.

"(Th)ink Machine." UT Austin Saturday Morning Math Group, 2014.

"Farey Lace." UT Austin Undergraduate Math Club, 2013.

"My Pet Field Theory." UT Austin Undergraduate Math Club, 2012.

"Start Digging! (A mathematical comedy in two acts.)" UT Austin Saturday Morning Math Group, 2012.

Notes

These unpublished expository notes can be found on my web site, at

> `http://www.math.toronto.edu/afenyes/writing.html.`

"An illustrated proof of the Perron-Frobenius theorem."

"The Geometry of The Night Sky (or, An Ape Pointing at The Stars)."
    A prose version of the talk.

"Matrix Algebras and Error-Correcting Codes."

"Classification of two-dimensional Frobenius and H^*-algebras."

"Where do alternating multilinear maps come from?"

"Relativity and Quantization."

"Farey Sets in $\mathbb{R}^n$."

Awards

2015 Visualizing Science finalist, 3rd place. UT Austin College of Natural Sciences.
    `https://cns.utexas.edu/news/visualizing-science-2015`

2013 Outstanding Teaching Assistant Award. UT Austin Natural Sciences Council.