

QUEER IN MATH DAY



MAX PLANCK INSTITUTE
FOR MATHEMATICS
IN THE SCIENCES

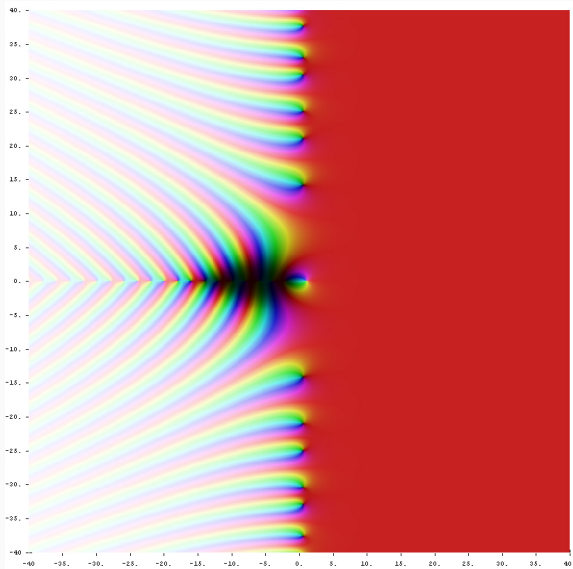
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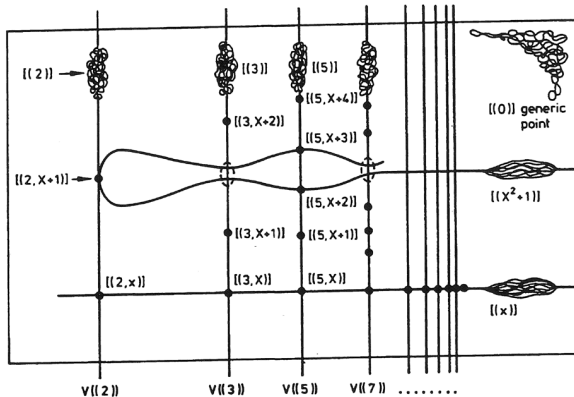
Odd similarities between mathematical and queer communities

▷ Love rainbows



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- ▷ Many things are a spectrum



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- ▷ Love rainbows
- ▷ Many things are a spectrum
- ▷ Chains of adjectives
- ▷ Argue about definitions

1. Idea

The notion of *commutative monoid* (or *commutative monoid object*, *commutative algebra*, *commutative algebra object*) in a [symmetric monoidal \(infinity,1\)-category](#) is the [\(infinity,1\)-categorical](#) generalization of the notion of [commutative monoid in a symmetric monoidal category](#). It is the commutative version of [monoid in a monoidal \(infinity,1\)-category](#).

Note that *commutative* here really means E_∞ , in the sense of [E-infinity operad](#).

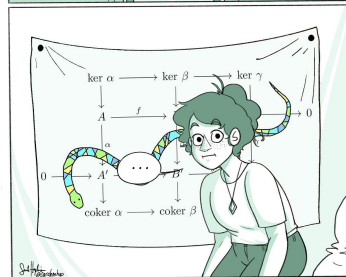
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- ▶ Fun symbols
- ▶ Correlate with autism



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- ▷ Correlate with autism
- ▷ Impostor syndrome
- ▷ Always in need for funding

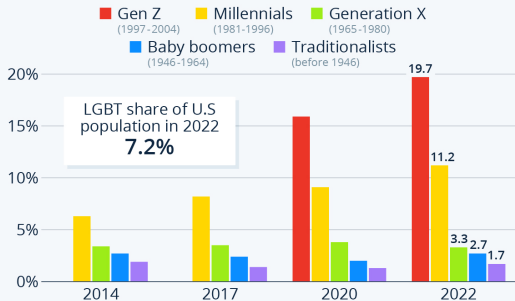
QUIZ: Are You Even Good Enough to Have Imposter Syndrome?



Gays everywhere???

7.2 Percent of U.S. Adults Identify as LGBT

Share of American adults who identify as LGBT, by birth year



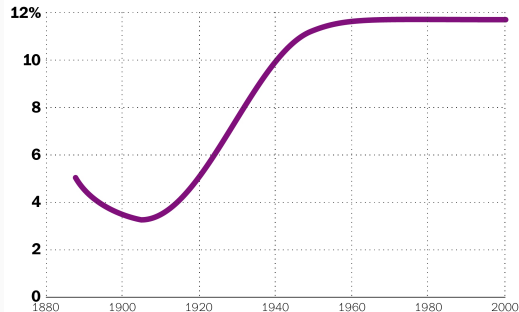
Source: Gallup



statista

The history of left-handedness

Rate of left-handedness among Americans, by year of birth



WAPO.ST/WONKBLOG

Source: Survey data reported in "The History and Geography of Human Handedness" (2009)

A fuzzy coordinate system

LGBTQIA+ \approx lesbian, gay, bisexual, transgender & non-binary, queer, intersex, asexual, aromantic, agender, ...

▷ Main “axes” of queer identities

1. Sex (biological)
2. Gender identity (social, cultural)
3. Sexual and romantic attraction (or lack thereof)

▷ queer is a reclaimed umbrella term for “non-normative sexual or gender identities”

▷ Different acronym popular in Germany (potentially +Q)

FLINTA = females, lesbians, intersex, non-binary, transgender, agender

Sex (\neq gender)

- ▷ Sex is initially assigned at birth (AFAB/AMAB) aligning with external genitalia
- ▷ Several characteristics: chromosomes, gonads, hormones, genitals
- ▷ Even sex is a spectrum <https://www.nature.com/articles/518288a>
- ▷ Intersex: sex characteristics including chromosome patterns, gonads, hormones, or genitals that do not fit typical binary notions of male or female bodies



- ▷ Gender is a cultural and social concept, manifesting in identity and expression
- ▷ Not necessarily aligning with one's sex/AGAB

Gender (\neq sex)

- ▷ **cisgender**: gender identity corresponds to AGAB
- ▷ **transgender**: gender identity differs from AGAB



- ▷ **non-binary (= enby)**: gender does not align with categories “woman” and “man”



<https://twitter.com/theFoxFisher/status/1694646306826867091>

Sexuality

- ▷ Heterosexual: **Straight** (women loving men, men loving women)
- ▷ Homosexual: **Lesbian** (women loving women) and **gay** (men loving men)



- ▷ **mSpec** (multi-attraction spectrum):
bisexual, **pansexual**, **polysexual** (attraction to own and other genders)

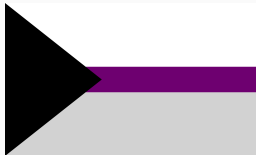


Sexuality 2

- ▷ **Allosexual**: ability to experience sexual attraction
- ▷ **Asexual and aromantic**: lack of sexual/romantic attraction or desire



- ▷ **Aroace umbrella**: Asexuality is a spectrum
- ▷ **Demisexual**: sexual attraction requires strong emotional connection with partner



- ▷ Yet another aspect: **monogamy** ↔ **ethical non-monogamy (ENM)**, polyamory

Pronouns matter

- ▷ Queer labels are mostly relevant in the context of relationships/dating
- ▷ Pronouns are always relevant, especially in a professional context
 - she
 - he
 - they
 - Combinations such as they/he (usually not hierarchical)
 - Any pronouns
 - No pronouns: always use name
 - Neopronouns, e.g. ze/zir
- ▷ Disregard of pronouns can cause discomfort and gender dysphoria
- ▷ You can't always tell a person's name from their face – just ask!
- ▷ Normalise having pronouns on nametags and websites!

- ▷ 1992 Colorado revoked the protected status of queer people
- ▷ 1995 Joint Mathematical Meetings (JMM) by MAA & AMS was planned to take place in Denver
- ▷ David Pengelley and James Humphreys independently wrote letters to AMS & MAA officers urging them to move meeting out of Colorado
- ▷ Despite the financial and organisational cost cancelling and rebooking contracts, both AMS and MAA agreed on moving JMM – though not without (internal) backlash
- ▷ Future hotel contracts for JMM include “Change of Legislation” clause
- ▷ Full story (amazing read!) lgbtmath.org/NoticesArticle/Article.pdf

Blog post:

reddit.com/r/math/comments/13xj5cd/on_the_intersection_of_pride_and_math/

Opportunities and challenges

- ▷ Queer individuals still face discrimination in their daily lives
- ▷ Networking and visibility helps creating a welcoming environment
- ▷ Queer inclusion equals better mathematics
<https://www.nature.com/articles/d41586-022-02354-y>
- ▷ Awareness of **intersectionality** and multiple discrimination (racism, ableism, antisemitism, ...)
- ▷ Acknowledging **social privileges** and calling out power structures aiding privileged people
- ▷ Sharing experiences helps empowering the community!

Queer associations in math and STEM



<https://lgbtmath.org/>



<https://ostem.org/>

The gay agenda

- ▷ 10:30 Leonie Kayser: *Introductory Lecture*
- ▷ 11:00 Theresa Simon: *Nonlocal Isoperimetric Problems*
- ▷ 12:00 *Lunch*
- ▷ 13:00 Yossi Bokor Bleile: *Doughnuts and Data*
- ▷ 14:00 Amazing folks: *Lightning talks*
- ▷ 15:15 *Coffee break*
- ▷ 16:00 Panel discussion *Being Queer in Mathematics*
- ▷ 18:00 *Dinner at Substanz* (cash payment only!)

Thank you! Questions?