



Hi, I'm  
Ian Teixeira!

I am currently an SEW Assistant Professor in the UC San Diego Mathematics Department. I study quantum error correction and fault tolerance, especially transversal gates, using the theory of unitary representations of finite groups and compact Lie groups.

Quick Links

- arXiv
- ORCID iD
- Math Stack Exchange
- Math Overflow
- Quantum Computing Stack Exchange

Published Articles

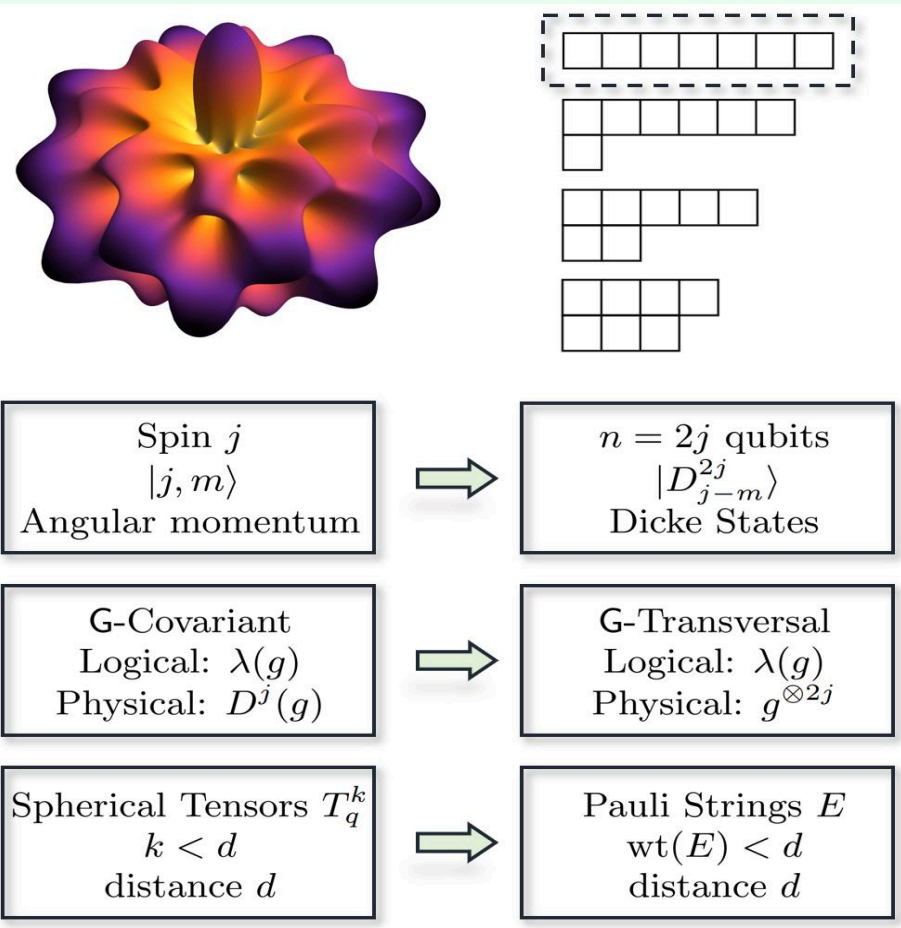
$K$	$G = \lambda(G)$	$N = q^n$	$G$	$t$
2	$2.A_5$	$2^7$	$2.A_5$	5
3	$3.A_6$	$3^5$	$3.A_6$	3
3	$3.A_6$	$3^7$	$3.A_6$	3
3	$SL(3,2)$	$7^4$	$2^5 \times SL(3,2)$	2
4	$2.A_7$	$6^9$	$6.A_7$	3
5	$PSp(4,3)$	$4^4$	$Sp(4,3)$	2
5	$PSp(4,3)$	$4^6$	$Sp(4,3)$	2
5	$SU(4,2)$	$6^6$	$SU(4,2)$	2
8	$4_1.PSL(3,4).2_3$	$8^5$	$4_1.PSL(3,4).2_3$	2
10	$2.M_{12}.2$	$12^5$	$2.M_{12}.2$	2
10	$2.M_{22}.2$	$56^3$	$2.M_{22}.2$	2
11	$SU(5,2)$	$10^5$	$SU(5,2)$	2
12	$6.Suz$	$11088^5$	$6.Suz$	2

Quantum codes and irreducible products of characters

Eric Kubischta & Ian Teixeira (2025)

Designs, Codes and Cryptography

Publication



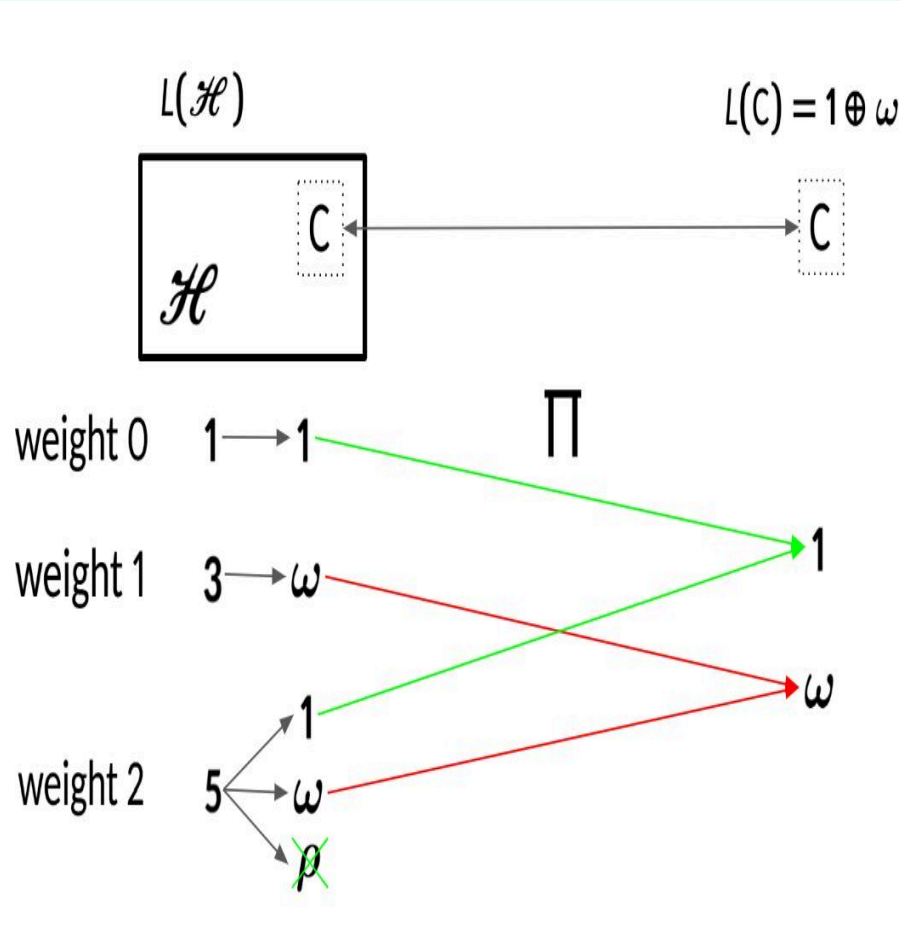
Permutation-Invariant Quantum Codes With Transversal Generalized Phase Gates

Eric Kubischta & Ian Teixeira (2024)

IEEE Transactions on Information Theory

Theory

Publication

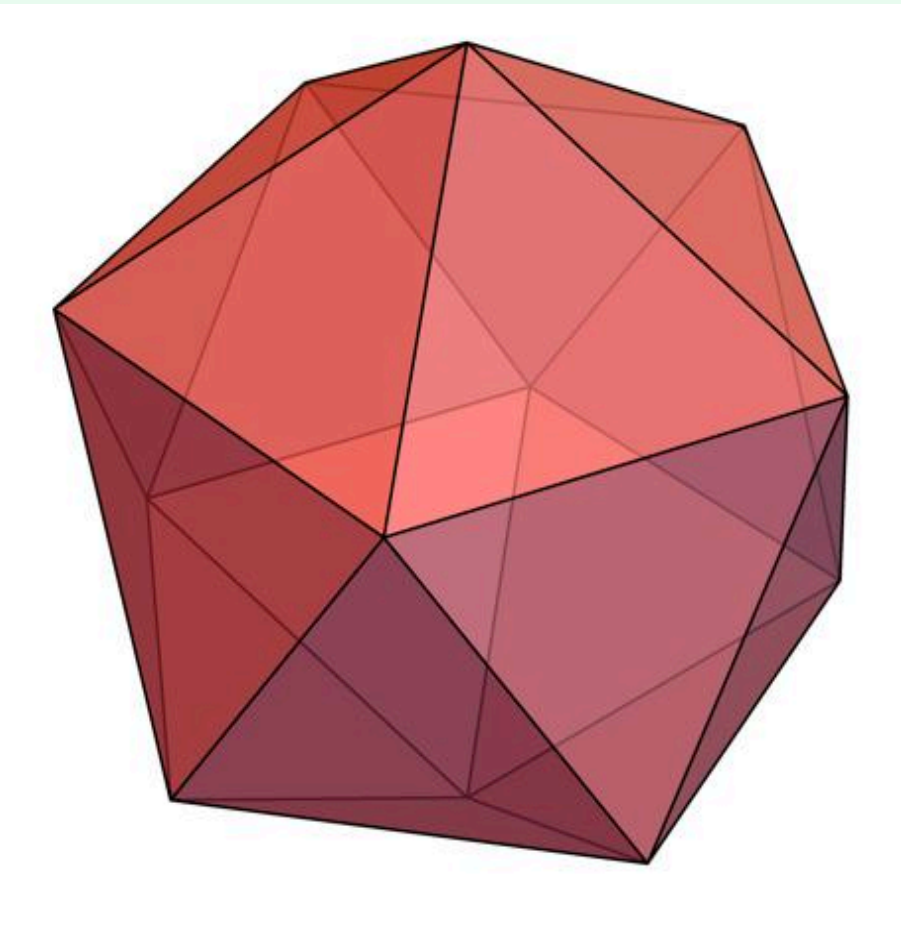


Quantum Codes from Twisted Unitary t-Groups

Eric Kubischta & Ian Teixeira (2024)

Physical Review Letters

Publication



Family of Quantum Codes with Exotic Transversal Gates

Eric Kubischta & Ian Teixeira (2023)

Physical Review Letters

Publication

Talks

Icosahedral Quantum Codes from Twisted Unitary t-groups

Eric Kubischta and Ian Teixeira  
University of Maryland  
MathQuantum Symposium 2025

Watch Here

Icosahedral Quantum Codes from Twisted Unitary t-groups

MathQuantum 2025 Annual Symposium

research talk by graduate fellows Eric

Kubischta and Ian Teixeira (presenter)

Quantum Codes, Transversal Gates, and Representation Theory

Ian Teixeira  
Ph.D. Candidate  
University of Maryland, College Park  
March 6, 2025

Watch Here

Quantum Codes, Transversal Gates, and Representation Theory

Graduate fellow Ian Teixeira's PhD

Dissertation Defense



Banter with Bob and Dan

Bob and Dan interview Ian Gershon Teixeira,

information and entertaining discussion about

quantum computing and quantum physics

Watch Here