Noncommutative Algebra and Geometry

Darin Stephenson

Mathematics

Ph: 616-395-7524

stephenson@hope.edu

BS in Mathematics (1998), University of Kentucky
MS (1990) and PhD in Mathematics (1994), University of Michigan
Postdoctoral Fellow, UC-San Diego, 1995-97
Areas of expertise: Ring Theory, Algebraic Geometry, Geometric Probability

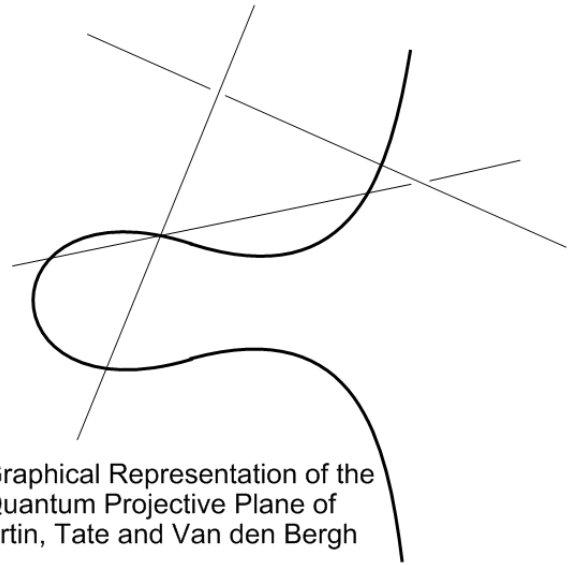
Grants and awards:

National Security Agency Young Investigator Grant in Algebra, 1999-2002
Invited as "Distinguished Visiting Professor" at Bucknell University, 2002.

Key Publications and Presentations:

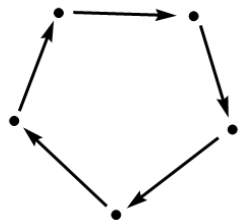
(with J. J. Zhang) Growth of graded Noetherian rings, *Proceedings of the AMS* **125** (1997)
(with R. Higginbottom and G. Dietz) Quantum 3-spaces which embed weighted quantum planes, *Rocky Mountain Journal of Mathematics* 35 (2005), 415-444.
(with M. Vancliff) Finite quantum P3s that are infinite modules over their centers, *Journal of Algebra*, 297 (2006).
(with M. Vancliff) Constructing Clifford quantum P3s with finitely many points, *Journal of Algebra*, 312 (2007).
(with E. Frugoni, N. Miller, and A. Wells), Counting Quadratic Forms of Rank 1 and 2, submitted.

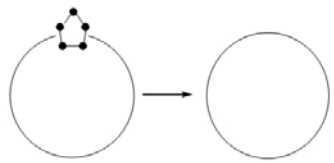
Acknowledgements: National Security Agency and the NSF



Graphical Representation of the Quantum Projective Plane of Artin, Tate and Van den Bergh

Depiction of the space Proj R, where R is the ring k[x] with x in degree 5.





The mapping of Proj R onto Proj S induced by the Veronese mapping S ⟶ R, where R = k[x,y] with deg(x) = 1 and deg(y) = 5, and S = k[x_5,y].