

# One Page CV

Markus Schmidmeier

## Professional Preparation

Ph.D., Munich University (LMU) 1996

Diploma, Munich University 1992

## Positions Held

Florida Atlantic University, Professor, since 2001

Norwegian University for Science and Technology, Guest Professor, during Fall 2005

## Research Projects

Linear operators and their invariant subspaces are ubiquitous in pure and applied mathematics, for example, there are still open questions on the Invariant Subspace Problem in analysis. In my research I use representation theory of finite dimensional algebras, in particular Auslander-Reiten quivers, tubular algebras and coverings, and also homological, geometric and combinatorial methods, to classify systems of invariant subspaces up to isomorphy.

## Papers since 2019

with X. Luo, *A reflection equivalence for Gorenstein-projective quiver representations*, 35 pp., <https://arxiv.org/pdf/2204.04695>

*Hammocks to visualize the support of a finitely presented functor*, J. Algebra **616** (2023), 68–96, <https://doi.org/10.1016/j.jalgebra.2022.10.025>

with J. Kosakowska, *The socle tableau as a dual version of the Littlewood-Richardson tableau*, J. London Math. Soc. (2) (2022), 1–23. <https://doi.org/10.1112/jlms.12601>

with J. Kosakowska, *Finite direct sums of cyclic embeddings*, Advances in representation theory of algebras, 159–169, Contemp. Math., **761**, Amer. Math. Soc., Providence, RI, (2021) <https://doi.org/10.1090/conm/761/15314>

with J. Kosakowska and H. R. Thomas, *Two Partial Orders for Littlewood-Richardson Tableaux*, The Electronic Journal of Combinatorics **26** (2019) #P3.20, 1–18, <https://www.combinatorics.org/ojs/index.php/eljc/article/view/v26i3p20/7880>

*From Schritte and Wechsel to Coxeter groups*, In: Mathematics and Computation in Music. MCM 2019. Lecture Notes in Computer Science, **11502** (2019), 113–124, Springer, [https://doi.org/10.1007/978-3-030-21392-3\\_9](https://doi.org/10.1007/978-3-030-21392-3_9)

*2:3:4-Harmony within the Tritave*, Journal of Mathematics and Music (2019), 1–23, <https://doi.org/10.1080/17459737.2019.1605626>

with P. Dowbor and H. Meltzer, *The “0,1-property” for exceptional objects for nilpotent operators of degree 6 with one invariant subspace*, J. Pure Appl. Alg. **223** (2019), 3150–3203 <https://doi.org/10.1016/j.jpaa.2018.10.013>

## External Funding

Simons Foundation, *Travel and Collaboration Grant*, (2012–18).

## Recent Conference Organized

*AMS Special Session on Representations of Algebras and Related Combinatorics*, at the University of Virginia in Charlottesville, VA, March 11-13, 2022, with Khrystyna Serhiyenko (University of Kentucky).

## Outreach to High Schools

I coordinated ten regional MA $\Theta$  competitions for high school students, each attracted around 900 - 1500 students to compete in 13 individual, team, and school contests in various areas of high school mathematics.

Signature:

Date: