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## **Factorization in Cluster Algebras: An Algorithmic Approach**

*Thursday, 26 February 2026 14:15 (20 minutes)*

Cluster algebras are built by repeated “mutation,” but their basic arithmetic is still mysterious: do elements factor uniquely? I’ll describe algorithms that, for a large class of cluster algebras (including many from surfaces and Grassmannians), compute the divisor class group, decide when unique factorization holds, and even list all factorizations of a given element. This is a joint work with D. Smertnig.

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