

**Functional Analysis, Mathematical Physics,
and Dynamical Systems
(FAMPDS)**

**Joint American-Ukrainian Virtual Colloquium Series
Spring 2021**

*Talk 9: Generalized Cluster Structures and Periodic
Difference Operators*

Michael Gekhtman (University of Notre Dame)

Abstract

We will consider a construction that ties together of several diverse notions including spaces of periodic difference operators, Poisson sub manifolds of a Drinfeld double of $GL(n)$ and subsets of Grassmannians stable under the action of powers of a cyclic shift. The theory of generalized cluster algebras serves as a unifying theme. Time permitting, we will also discuss potential applications to representation theory of quantum affine algebras at roots of unity.

Based on a joint work with M. Shapiro and A. Vainshtein and an ongoing project with C. Fraser and K. Trampel.

Friday, May 7, 10:00-11:00 AM (PDT), 20:00-21:00 (EET)

Online via Zoom at
<https://fresnostate.zoom.us/j/5233106532>