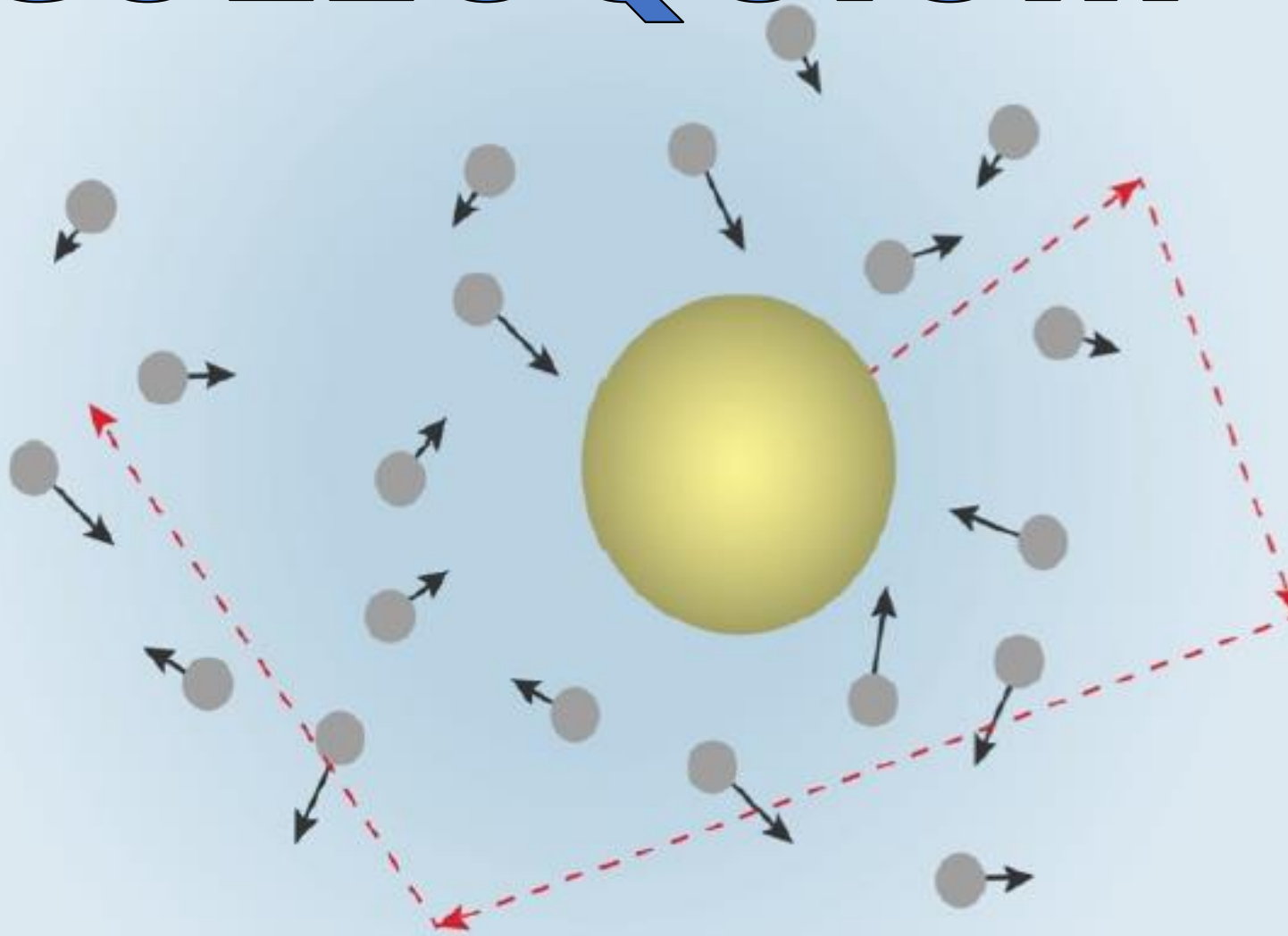


# COLLOQUIUM



**10-21-21**

**Dr. LAYLA SORKATTI**

University of Khartoum  
and Al-Neelain University

Time: 3:00 - 4:00 pm

Place: Via Zoom\*

**SIU** Southern Illinois  
University  
CARBONDALE

\* Zoom link to be emailed later.

## **Title: Nilpotent Symplectic Alternating Algebras**

Abstract: Let  $F$  be a field. A Symplectic alternating algebra over  $F$  is a triple  $(V, (\cdot, \cdot), \cdot)$  where  $V$  is a symplectic vector space over  $F$  with respect to a non-degenerate alternating form  $(\cdot, \cdot)$  and  $\cdot$  is an alternating bilinear and binary operation on  $V$  such that the law  $(u \cdot v, w) = (v \cdot w, u)$  holds. These algebraic structures have arisen from the study of 2-Engel groups but seem also to be of interest in their own right with many beautiful properties. We will give an overview with a focus on some recent work on the structure of nilpotent symplectic alternating algebras.