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# Joint Geometric Analysis Seminar

(Part of MIST program)

## *On the solvability of general inverse $\sigma_k$ -equations*

*Prof. Chao-Ming, Lin*  
*Ohio State University*

### *Abstract*

In this talk, first, I will introduce general inverse  $\sigma_k$  equations in Kähler geometry. Some classical examples are the complex Monge–Ampère equation, the J-equation, the complex Hessian equation, and the deformed Hermitian–Yang–Mills equation. Second, by introducing some new real algebraic geometry techniques, we can consider more complicated general inverse  $\sigma_k$  equations. Last, analytically, we study the solvability of these complicated general inverse  $\sigma_k$  equations.

Date: 27 May 2024 (Monday)  
Time: 10:30 am-11:30 am  
Venue: LSB 222

*All are Welcome*