Dear all,

Please come and support this important department activity. <u>LIGHT REFRESHMENT WILL BE</u> <u>SERVED – Sponsored by the Math</u> Club (special thanks to Prof. Wolf Lauren to support this from the math club)

## Mathematics and Mathematics Education Research Seminar

## **The Power of Vorticity in Oscillatory Flows**

## Speakers: Prof. Moise Koffi

## FEB 26, Tuesday at 3:30 PM in B441

The aerodynamics induced by rotational oscillating flat objects present significant benefits used in engineering applications. This study analyzes the fluid-structure interactions in the near proximity of a rotating rectangular plate in oscillatory motion, and explores its numerous applications encountered in our daily lives. Computational Fluid Dynamics (CFD) simulations and flow visualization techniques with smoke particles enable to investigate the flow and thermal characteristics. It was found that vortices form and detach continuously around plate-like objects subjected to oscillatory motions. The shedding of these vortices at end-strokes are responsible for the related enhanced flow and thermal characteristics which are found in diverse areas ranging from industrial to biological applications.

\*\*\* Light refreshments will be served sponsored by the math club in coordination with Prof. Wolf \*\*\*

For any questions, please contact Tanvir Prince at tprince@hostos.cuny.edu

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