



DEPARTMENT OF MATHEMATICS

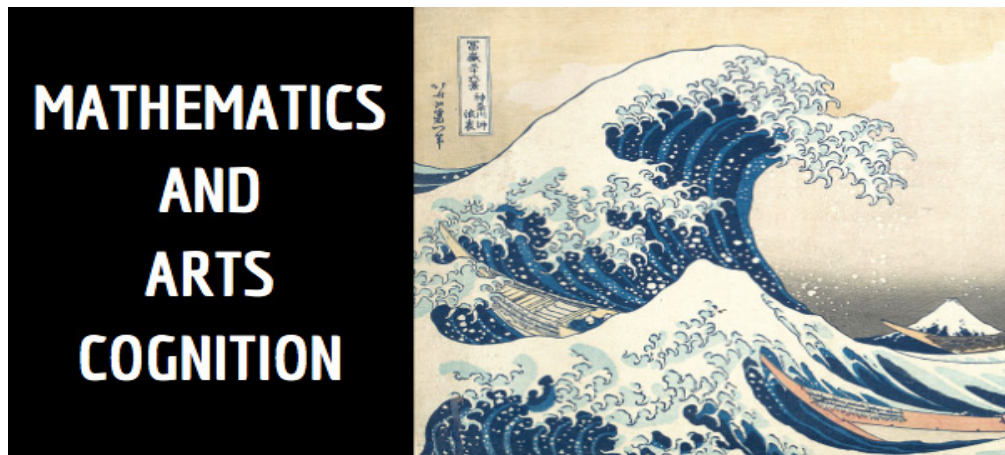
Fall 2023 MATH Colloquium Series

The Intersection of Mathematics and Art Cognitions - The Great Wave off Kanagawa and The Fibonacci Spiral

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This study explores the intersection of art and mathematics cognition. The study examined the nature of pre-calculus students' mathematics and art cognitions in making and testing conjectures about recursive relationships, using the Fibonacci spiral and the woodblock print The Great Wave Off Kanagawa by Katsushika Hokusai as stimuli. The research uses the Pirie and Kieren (P-K) framework and proposes an extended version of it (P-K-Arts) for documenting both mathematical understanding and artistic appreciation. The goal is to identify and describe the mathematical and art-centered/visual thinking by students as they make sense of math-art-linked tasks. The findings suggest that the P-K framework is useful in unpacking the mathematically-and visually-rich aspects of cognition by pre-calculus students. The implications of the research include designing new curriculum and related research on how to combine art and mathematics to better support sense-making by students for developing deep mathematical understanding. This study highlights the potential of incorporating art into mathematics education to engage students in mathematical thinking and learning.



September 14, 2023
Thursday

4:00 PM
BSS 166

FOR MORE INFO GO TO [HTTPS://MATH.HUMBOLDT.EDU/GET-INVOLVED/MATHEMATICS-COLLOQUIUM](https://math.humboldt.edu/get-involved/mathematics-colloquium)

WE CORDIALLY INVITE YOU TO THE PRE-COLLOQUIUM TEA IN BSS 312
AT 3:30 PM