Thesis Seminar

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Thursday, January 25, 2018
1:00-2:00 pm in HH-3017

Strong Skolem Starters

Abstract:

This talk is largely based on the my paper (coauthored by prof. Kondratieva and prof. Shalaby) which concerns a class of combinatorial objects called Skolem starters, and more specifically, strong Skolem starters, which are generated by Skolem sequences.

In 1991, Shalaby conjectured that any additive group of integers modulo n, where n exceeds 9 and n is congruent to 1 or 3 (mod 8), admits a strong Skolem starter and constructed these starters of all admissible orders up to n=57. Only finitely many strong Skolem starters have been known to date.

In the paper, we offer a geometrical interpretation of strong Skolem starters and explicitly construct infinite families of them.