

# 早稲田大学整数論セミナーの予定 (2019年度 第16回)

日時：2019年9月3日（火）16:30～18:00

場所：〒169-8555 東京都新宿区大久保3-4-1  
早稲田大学西早稲田キャンパス（旧・大久保キャンパス）  
59号館4階420室 (59-420)

講演者：Lasse Grimmelt (Utrecht 大学)

タイトル：Additive Problems in (Subsets of) the Primes

アブストラクト：In this talk I will present recent developments of how to apply majorants and minorants in additive number theory. Famous is the conjecture of Goldbach that every even integer larger than 2 is the sum of two primes. Even though this seems still out of reach, there was remarkable progress on related questions in the last 90 years. Starting point of current research is Vinogradov's result that every large odd number is the sum of three primes. In the last 15 years Vinogradov's technique was combined with ideas from additive combinatorics to prove striking new results. For example Green proved that every subsets of the primes with positive relative density contains many three term arithmetic progressions. To do this, Green showed how one can use the structure of a majorizing set to obtain the necessary additive information. Building up on this work, I will explain the main result of my thesis, a version of Vinogradov's Theorem with primes of a special form. Finally, I will present how one can use a new approach to minorants to prove a new result that almost all even integers in a short interval are the sum of two primes.