

Joetsu Number Theory Seminar

Date : 13:30 – , December 13 (Wed.), 2017.

Venue : Room Jinbuntou 114, Joetsu University of Education,
Yamayashikicho 1, Joetsu, Niigata 943-8510, Japan

Program

13:30 – 14:30 **Winfried Kohnen** (Heidelberg University)

Shifted products of Fourier coefficients of cusp forms.

14:45 – 15:45 **Takashi Taniguchi** (Kobe University)

Uniform version of Landau's method and its applications

16:00 – 17:00 **Hiroshi Sakata** (Waseda University Senior High School)

Jacobi cusp new forms 上で定義されるレベル - 指数入れ替え写像の具体的構成

18:00 – Dinner

Abstracts

Winfried Kohnen (Heidelberg University)

Title : Shifted products of Fourier coefficients of cusp forms.

Abstract : We will report on recent joint work with E. Hofmann on non-vanishing of shifted products of Fourier coefficients of elliptic cusp forms and also about a generalization (recent joint work with Sengupta) to the case of Siegel cusp forms of degree two.

Takashi Taniguchi (Kobe University)

Title : Uniform version of Landau's method and its applications

Abstract : Suppose we have a zeta function (Dirichlet series) which satisfies a standard functional equation. A classical method of Landau gives an estimate of the partial sum of its coefficients with a power saving error term. In this talk, I will explain a uniform version of Landau's theorem; the implied constant in the error term will depend only on the 'shape' of the functional equation. I also would like to discuss several applications of this result. This is a joint work with David Lowry-Duda and Frank Thorne.

Hiroshi Sakata (Waseda University Senior High School)

Title : Jacobi cusp new forms 上で定義されるレベル - 指数入れ替え写像の具体的構成

Abstract : N は平方因子を持たない奇数とする. レベル 1, 指数 N の Jacobi cusp new form を Atkin-Lehner 作用素の固有形式の線形和で書き表したときに現れる各固有形式

からレベル N , 指数 1 の Jacobi cusp form への写像を, 固有形式毎に具体的に構成する. これらの写像は, 固有形式が全ての Atkin-Lehner 作用素で不変になる場合は自明指標を持つ Jacobi cusp new form への Hecke 同型写像として実現される一方, 固有形式が他の固有値を持つ場合は, 幾つかの条件の下, 特定の Hecke 固有システムを持つ固有形式で張られる部分空間の元から指標付き Jacobi cusp form への単射写像として実現される.

Organizers : Shuichi Hayashida, Jin Nakagawa (Joetsu Univ. of Edu.)