

Symposium on

**Recent topics in algebraic analysis**  
**(代数解析日大研究集会)**

Organizers: Naofumi Honda (Hokkaido Univ.), Yasunori Okada (Chiba Univ.),  
Kohei Umeta (Nihon Univ.) and Susumu Yamazaki (Nihon Univ.)

March 6 (Thu.) ~ 8 (Sat.), 2025  
Building No. 8 Room 842, Surugadai Campus,  
College of Science and Technology, Nihon University

**Program**

**March 6**

- 13:30 - 14:15 Shofu Uchida (Nihon Univ.)  
The connection formulas of Voros type for the WKB solutions to the Pearcey system with a large parameter (joint work with T. Aoki and T. Suzuki)
- 14:30 - 15:15 Sampei Hirose (Shibaura Institute of Technology)  
WKB solutions and Gauss-Manin systems
- 15:30 - 16:15 Yoko Umeta (Hokkaido Univ.)  
A certain problem related to instanton solutions of higher-order Painlevé equations

**March 7**

- 9:45 - 10:30 Ryosuke Sakamoto (Hokkaido Univ.)  
On an Estimate of Supports of Multi-Microlocalization under Growth Conditions
- 10:45 - 11:30 Haru Negami (Chiba Univ.)  
Virtual knots and Haraoka's multiplicative middle convolution

- 13:30 - 14:15 Toshihiro Nose (Fukuoka Institute of Technology)  
Meromorphic continuation of local zeta functions in smooth model cases
- 14:30 - 15:15 Tatsuki Nishida (Hokkaido Univ.)  
On the relative Čech-Dolbeault representation of ultradistributions
- 15:30 - 16:15 Daichi Komori (Kindai Univ.)  
An approach to the compatibility between the composition of the pseudodifferential operators and the product of symbols in the Čech-Dolbeault cohomology
- 16:30 - 17:15 Keisuke Uchikoshi (National Defense Academy)  
Renormalization and pseudodifferential operators

### March 8

- 10:45 - 11:30 Ryoga Katsuki (Chiba Univ.)  
On a maximizer of supports of the images for a differentiable function-valued continuous linear mapping
- 13:30 - 14:15 Shu Nakada (Chiba Univ.)  
Kummer's 24 solutions of the Papperitz differential equation
- 14:30 - 15:15 Hidemasa Suzuki (Chiba Univ.)  
Explicit correspondences between gradient trees in  $\mathbb{R}$  and pseudo-holomorphic disks in  $T^*\mathbb{R}$
- 15:30 - 16:15 Shinji Sasaki (Osaka Metropolitan Univ.)  
Summability of WKB-theoretic 2-parameter formal solutions to Painlevé equations

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