

The 41st NIR Forum Program

WED, November 12, 2025, p.m.

12:30 Opening

Short Course (Moderator: Eizo Taira)

13:15-14:45 **I-01** Basics:
(Nagoya City University) ○Norihisa Katayama

14:45-15:00 Break

15:00-16:30 **I-02** Applications:
(Osaka Electro-Communication University) ○Shigeaki Morita

16:30-17:00 Q & A session

The 41st NIR Forum Executive Committee

Executive committee	Akifumi Ikehata (NARO) Kazuo Osaki (Metrohm Japan Co., Ltd.) Eizo Taira (University of the Ryukyus) Tetsuya Inagaki (Nagoya University) Takuma Genkawa (NARO) Naoto Kakuta (Tokyo Metropolitan University) Masato Takeuchi (Osaka Public University) Yusuke Morisawa (Kindai University) Masatoshi Yoshimura (The University of Tokyo) Kenichi Fuchigami (JFRL) Yuki Kimura (AITC)
Co-op Member Office	Michi Matsumoto (JCNIRS Office, NARO) 2-1-12 Kannondai, Tsukuba, Ibaraki 305-8642, Japan Tel: +81-29-838-8057 E-mail: office@jcnirs.org

General presentations: 15-minute slots, Q&A included

Company Presentations: 5 minutes, no Q&A

THU, November 13, 2025, a.m.

9:00	Opening
9:30-9:35	Opening Address
9:35-9:40	JCNIRS Award ceremony ————— (Moderator: Akifumi Ikehata)
9:40-10:05	K-01 JCNIRS Award lecture Hyperspectral near-infrared spectroscopy for high-throughput quantitative and discriminant analysis: Dried laver sheets, Pearls, and Urines (Department of Chemistry, Hanyang University, Korea) ○Hoeil Chung
10:05-10:30	K-02 Keynote lecture Application of Metabolomics for High Resolution Phenotype Analysis (Department of Biotechnology, Graduate School of Engineering, The University of Osaka) ○Eiichiro Fukusaki
10:30-10:35	Break and Poster Display
—————	Engineering Applications ————— (Chairperson: Masato Takeuchi)
10:35-11:00	I-03 Invited lecture Utilization of NIRS for Pharmaceutical Development and Manufacturing (Kyoto University) ○Manabu Kano
11:00-11:15	O-01 <i>Student Travel Award</i> Particle diameter evaluation of colloidal suspensions by machine learning from light scattering intensity measurements (Division of Mechanical and Space Engineering, Faculty of Engineering, Hokkaido University) ○Hiromichi Nozaki, Hiroyuki Fujii, Kazumichi Kobayashi, Masao Watanabe
11:15-11:30	O-02 <i>Student Travel Award</i> A Differential Geometric Consideration of the Stress Relaxation Process in Wood (¹ Graduate School of Sustainability Science, Tottori University, ² Faculty of Agriculture, Tottori University) ○Eita Shimizu ¹ , Takaaki Fujimoto ²

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- 11:30- **O-03**
11:45 Visualization of water vapor in air using near infrared light
(Department of Mechanical Systems Engineering,
Tokyo Metropolitan University)
○Naoto Kakuta, Fumito Yazawa, Yuina Abe
- 11:45- **O-04**
12:00 Examination of spectrum analysis with using learning algorithm
(DUNAMIST co Ltd)
○Hiromichi Aoki
- 12:00- **Project Description for the SIGNATE Competition**
12:15 (Nagoya University)
○Tetsuya Inagaki

12:15- **Lunch Break and Poster Display**
13:15

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Sponsor Presentations (Moderators: Yuki Kimura)

- 13:15- C-01 PureSpectra Ltd.
 15:03 C-02 AD Science Inc.
 C-03 BeatSensing Co., Ltd.
 C-04 S.T. Japan Inc.
 C-05 Foss Japan Ltd.
 C-06 Metrohm Japan Ltd.
 C-07 AproLink Corp.
 C-08 Kett Electric Laboratory Co., Ltd.
 C-09 NSP Ltd.
 C-10 Bruker Japan K.K.
 C-11 Dunamist Co., Ltd.
 C-12 Thermo Fisher Scientific K.K.
 C-13 BL TEC K.K.
 C-14 Nireco Corporation
 C-15 KLV Co., Ltd.

 C-17 Spectra CO-OP
 C-18 IR System Co., Ltd.

Break

Poster Presentation A (Odd numbers) / Company Exhibition

Break

Theory & Fundamentals, Instrumentation

(Chairperson: Naoto Kakuta)

O-05

Analysis of the Hydrogen-Bonding Network of Water Molecules under Simulated Microgravity
 (¹Shimane Univ., ²Shiseido Co., Ltd., ³Osaka Metropolitan Univ., ⁴Kobe Univ., ⁵JAXA)
 ○Mika Ishigaki¹, Koyo Koizumi², Kotomi Asano¹, Naoki Okamoto², Go Takehi², Riku Sasamoto³, Masato Takeuchi³, Tsenkova Roumiana⁴, Mio Matsui⁵, Aiko Nagamatsu⁵, Mariko Egawa²

O-06

Rigid color value method in invisible wavelength's region for spectral imaging
 (Spectral Application Research Laboratory Inc., SARLI)
 ○Kazuji Matsumoto, Misao Takamatsu

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16:45- 17:00	O-07 <i>Student Travel Award</i> Development of LC-NIR, detection of liquid chromatography by near-infrared spectroscopy (Osaka Electro-Communication University) ○Mihiro Hayami, Shigeaki Morita
17:00- 17:15	O-08 Non-invasive quality evaluation of sausages stuffed in modified casings enriched with citrus peel extracts using hyperspectral imaging and terahertz spectroscopy coupled with chemometrics (¹ Kitami Institute of Technology, ² RIKEN) ○Feng Chao-Hui ^{1,2} , Arai Hirofumi ¹ , Otani Chiko ²
17:15- 17:20	break
17:20- 17:50	JCNIRS Student Travel Award Ceremony Annual General Meeting of the Near Infrared Research Society of Japan (Including business report, financial report, announcement of next year's meeting, etc. Open to all participants.)
18:00- 19:30	Mixer (Yayoi Auditorium Annex)

FRI, November 14, 2025, a.m.

9:00	Opening
9:20-9:25	NIR Advance Award Ceremony — (Moderator: Tetsuya Inagaki)
9:25-9:50	I-06 NIR Advance Award lecture1 Product Development and Market Launch of a Pharmacy Equipment "KONAMIRU", NIR-Based Drug Verification System (WIZRAY Co., Ltd.) ○Kei Moriyama
9:50- 10:15	I-07 NIR Advance Award lecture2 Rapid Quantification of API Content in Pharmaceutical Tablets by High-Power Time-Stretch Near-Infrared Spectroscopy (¹ USHIO INC., ² Towa Pharmaceutical Co., Ltd.) ○Aya Ikarashi ¹ and Koji Nakayama ²
10:15- 10:20	Break
	Agriculture and Food ————— (Chairperson: Akifumi Ikehata)
10:20- 10:45	I-06 Gene expression and near-infrared spectral profiling assess growth stage-, environment-, and genetic background-dependent differences in rice (¹ Institute of Crop Science, NARO, ² Institute of Fruit Tree and Tea Science, NARO, ³ Institute of Food Research, NARO) ○Yutaka Sato ¹ , Hinako Takehisa ^{1,2} and Akifumi Ikehata ³
10:45- 11:00	O-09 <i>Student Travel Award</i> Chick sexing based on blood analysis via Near-infrared Spectroscopy (¹ Shimane University, ² NABEL Co., Ltd., ³ UKON Craft Science Ltd) ○Sana Matsumoto ¹ , Akane Ogino ² , Kai Onoe ² , Juichiro Ukon ³ , Mika Ishigaki ¹
11:00- 11:15	O-10 <i>Student Travel Award</i> Linking Structural and Chemical Variability to Decomposition Dynamics in Japanese Cedar Using X-ray CT and Hyperspectral Imaging (¹ Graduate School of Bioagricultural Sciences, Nagoya University, Japan, ² Forestry and Forest Products Research Institute, Japan) ○Benedictus Reynaldo Hartanto ¹ , Yoshimi Sakai ² , Te Ma ¹ , Satoru Tsuchikawa ¹ , Tetsuya Inagaki ¹
11:15- 11:30	Report on the International Conferences (ANS 2024 and NIR 2025) and Announcement of ANS 2026 and NIR 2027
11:30- 12:30	Poster Presentation B (Even numbers) / Company Exhibition
12:30- 13:30	Lunch break

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————— Agriculture and Food ————— (Chairperson: Masatoshi Yoshimura)

13:30- **I-07** Invited lecture
 13:55 Non-destructive wood species identification of wooden sculptures
 using near-infrared spectroscopy
 (¹Nihon University, ²Japan International Research Center for
 Agricultural Sciences)
 ○Yohei Kurata¹, Hisashi Abe²

13:55- **O-11**
 14:10 Maintenance and Adaptation of NIR Calibration Models for
 Consistent Sugarcane Quality Evaluation
 (¹Faculty of Agriculture, University of the Ryukyus,
²Subtropical biomass research center, ³Kagoshima University)
 ○Eizo Taira¹, Atsuya Tasaki², Tetsu Shirakawa¹, Miki Horie³,
 Yoshiaki Shinzato¹

14:10- **O-12**
 14:25 Development and accuracy of new NIRS calibration models for
 determining rice amylose content in extremely hot summers
 (¹Hokkaido Agricultural Structures Council, ²Shizuoka Seiki,
³Hokuren Agricultural Research Institute and ⁴Hokkaido Research
 Organization Central Agricultural Experiment Station)
 ○Shuso Kawamura¹, Hiroyuki Ishizu², Haruka Iino³ and Toshinari
 Igarashi⁴

14:25- **break**
 14:40

————— (Chairperson: Mizuki Tsuta)

14:40- **O-13**
 14:55 Possibility of NIR Two Wavelength Model for Discrimination of
 Crystalline Anomaly in Taro
 (Ehime University)
 ○Keiji Konagaya, Taro Kimura, Chihiro Kamida
 and Noriko Takahashi

14:55- **O-14**
 15:10 Construction of a Unified API for Legacy NIR Mini-Spectrometer
 (The University of Tokyo)
 ○Masatoshi Yoshimura and Itaru Sotome

15:10- **Best Poster Award Ceremony**
 15:25 Closing