International Workshop on Nonlinear Energy Localization in Crystals and Related Media

December 2-3, 2016

Kyoto International Exhibition Hall "Miyako Messe", Kyoto, Japan

2016.12.2 (Fri.)

9:40-9:50 Opening

9:50-10:30 Search of discrete breathers in unstrained graphene
Sergey V. Dmitriev (Institute for Metals Superplasticity Problems of Russian Academy of Sciences), Ivan P. Lobzenko, Andrey A. Kistanov, Elena A. Korznikova

10:30-10:55 Variety of discrete breathers in fcc crystals
Elena A. Korznikova (Institute for Metals Superplasticity Problems of Russian Academy of Sciences), Andrey A. Kistanov, Sergey V. Dmitriev

10:55-11:05 break

11:05-11:30 Properties of discrete quasibreathers and Rosenberg modes in graphene by means of classical and quantum molecular dynamics
Ivan Lobzenko (Toyota Technological Institute), George Chechin, Alexandr Chetverikov, Sergey Dmitriev

11:30-11:55 Role of Intrinsic Localized Modes in Atomic Structures: Trigger of Stone-Wales Defect Formation in Carbon Nanotubes
Takahiro Shimada (Kyoto University), Takayuki Kitamura

11:55-13:20 Lunch

13:20-14:00 Mobile breather scattering in a 2D hexagonal crystal lattice
J. Chris Eilbeck (Heriot-Watt University)
14:00-14:40  Localized nonlinear excitations in silicate layers
Juan F.R. Archilla (University of Sevilla)

14:40-15:05  Mobile discrete breathers and symmetry of pairwise interaction in crystals
Yusuke Doi (Osaka University), Akihiro Nakatani

15:05-15:30  Moving Intrinsic Localized Modes and Its Behavior at Junction between Two Different Lattices
Masayuki Kimura (Kyoto University), Ryo Tsujisaka, Yoshiharu Taniguchi, Yasuo Matsushita, and Takashi Hikihara

15:30-15:50  Break

15:50-16:15  Defects in single-walled carbon nanotubes investigated by atomic force microscopy and its related techniques
Yuji Miyato (Osaka University), Kei Kobayashi, Hirofumi Yamada

16:15-16:40  Existence and stability of odd and even parity discrete breathers in Fermi-Pasta-Ulam lattices
Kazuyuki Yoshimura (Tottori University)

Evening Banquet

2016.12.3 (Sat.)

10:00-10:40  Confining interparticle potential makes both heat transport and energy diffusion anomalous in one-dimensional phononic systems
Yuriy A. Kosevich (Semenov Institute of Chemical Physics, Russian Academy of Sciences), Alexander V. Savin

10:40-11:20  Non-universal heat correlation functions and their anomalous scaling in one-dimensional systems
Daxing Xiong (Fuzhou University), Jun Zhang
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<tr>
<th>Time</th>
<th>Session Title</th>
<th>Presenter(s)</th>
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<tr>
<td>11:20-11:45</td>
<td>Contact geometric approaches to nonlinear RLC circuit lattices in contact with heat bath</td>
<td>Shin-ito Goto (Kyoto University)</td>
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<td>11:45-13:20</td>
<td>Lunch</td>
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<td>13:20-14:00</td>
<td>Wave Propagation in Origami-based Mechanical Metamaterials</td>
<td>Hiromi Yasuda (Washington University), Jinkyu Yang</td>
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<td>14:00-14:25</td>
<td>Making of air-levitation-type coupled oscillator array and experiments on excitation of intrinsic localized modes</td>
<td>Yosuke Watanabe (Osaka University), Mai Nishimoto, Chika Shiogama</td>
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<td>14:25-14:50</td>
<td>Traveling Intrinsic Localized Modes in Nonlinear Driven Damped Lattices</td>
<td>M. Sato (Kanazawa University), S. Shige, T. Mukaide and A. J. Sievers</td>
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<td>14:50-15:00</td>
<td>Closing</td>
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