

Scientific Programme

International Workshop

**Wave dynamics in branched systems and
networks:**

From Nano to Macro scale

May 25 - 27, 2016

Tashkent, Uzbekistan

Day 1, May 25

8:30-9:15 *Registration*

9:15-9:30 *Opening Ceremony*

<u>Morning Session</u>	
<u>Chair:</u> Fatkhulla Abdullaev	
9:30-10:15	Taksu Cheon. <i>Adiabatic cycles in quantum systems with contact interactions</i>
10:15-11:00	Davron Matrasulov. <i>Wave dynamics in networks: Metric graph based description</i>
Coffee Break (11:00-11:30)	
11:30-12:15	Dmitry Pelinovsky. <i>Standing localized waves on periodic graphs</i>
12:15-13:00	Hadi Susanto. <i>Localised solutions in star graphs</i>
Lunch break (13:00-14:30)	
<u>Afternoon Session</u>	
<u>Chair:</u> Dmitry Pelinovsky	
14:30-15:15	Oliver Mulken. <i>Complex Quantum Networks</i>
15:15-16:00	Daniel Waltner. <i>Stationary waves on nonlinear quantum graphs: Focus on Canonical Perturbation Theory</i>
Coffee Break (16:00-16:30)	
16:30-17:15	Jambul Yusupov. <i>Particle transport in a network of quantum harmonic oscillators</i>
17:15-18:00	Karim Sabirov. <i>Static sine-Gordon solitons in networks</i>
18:20-18:40	Saparbay Rakhmonov. <i>Particle transport in Y-junction of graphene nanoribbon</i>

Day 2, May 26

<u>Morning Session</u>	
Chair: Oliver Mulken	
9:30-10:15	Fatkhulla Abdullaev. <i>Discrete solitons in array of BEC with spin-orbit coupling</i>
10:15-11:00	Katsuhiko Nakamura. <i>Theory of fast forward and its application to quantum tunneling phenomena</i>
Coffee Break (11:00-11:30)	
11:30-12:15	Bakhtiyor Baizakov. <i>The binding energy of soliton molecules in dipolar Bose-Einstein condensates.</i>
12:15-13:00	Yoshihiro Yamazaki. <i>Spatiotemporal dynamics of pulse structure</i>
Lunch break (13:00-14:30)	
<u>Afternoon Session</u>	
Chair: Katsuhiko Nakamura	
14:30-15:15	Doniyor Babajanov. <i>Wave dynamics in planar branched systems</i>
15:15-16:00	Usmon Sapaev. <i>Nonlinear wave interaction of harmonics in 1D and 2D nonlinear photonics crystals</i>
Coffee Break (16:00-16:30)	
16:30-17:15	Iwan Setiawan. <i>Fast-forward Problem on Asymmetric Double-well Potential</i>
17:15-17:35	Azizbek Ruzmetov. <i>Burgers equation on networks</i>
17:35-17:55	Hayat Ismatullaev. <i>BEC in an asymmetric trap potential.</i>

Day 3, May 27

<u>Morning Session</u>	
Chair: Taksu Cheon	
9:30-10:15	Mersaid Aripov. <i>Fujita type a critical exponent for a cross system and it applications</i>
10:15-11:00	Boris Oksengendler. <i>Fractal ideas in some problems of perovskite based solar cells</i>
Coffee Break (11:00-11:30)	
11:30-11:50	Sergey A. Sattarov. <i>Nonlinear KDVB-type waves in superconductors</i>
11:50-12:10	Doniyor Jumanazarov. <i>Bogoliubov de Gennes equation on networks</i>
12:10-12:30	Gulmira Babajanova. <i>Fast forward of tunneling dynamics of wave packet</i>
12:30-12:45	Olga Karpova. <i>Harmonic generation in branched wave guides</i>
Lunch break (13:00-14:30)	
<u>Afternoon Session</u>	
14:30-17:30	Student session Short talks by graduate students