



First Announcement

BGL-8 International Conference on Non-Euclidean Geometry in Modern Physics and Mathematics

8-th Bolyai-Gauss-Lobachevsky Conference, 22 – 25 May 2012

Uzhgorod, Ukraine

Programme Committee

István Lovas (Budapest, Hungary) *Co-Chairman*
A.H. Zagorodny (Kiev, Ukraine). *Co-Chairman*
V.D. Gershun (Kharkov, Ukraine)
V.P. Gusynin (Kiev, Ukraine)
Yu.M. Ilyin (Simferopol, Ukraine)
V.G. Kadyshevsky (Dubna, Russia)
Yu.A. Kurochkin (Minsk, Bylarus)
V.Yu. Lazur (Uzhgorod, Ukraine)
I.V. Mryhlod (Lviv, Ukraine)
Péter Nagy (Debrecen, Hungary)
G.M. Polotovskiy (Nizhnij Novgorod, Russia)
Miklós Rontó (Miskolc, Hungary)
Kornél Sailer (Debrecen, Hungary)
N.F. Shulga (Kharkov, Ukraine)
Yu.O. Sitenko (Kiev, Ukraine)
D. Sorokin (Padova, Italy)

Organizing Committee

O.B. Shpenik (Uzhgorod, Ukraine) *Chairman*
László Jenkovszky (Kiev, Ukraine) *Vice Chairman*
A.N. Zvilopulo (Uzhgorod, Ukraine) *Vice Chairman*
Zoltán Tarics (Uzhgorod, Ukraine), *scientific secretary*
Yu.M. Azhniuk (Uzhgorod, Ukraine)
F. Colasuonno (Bari-Perugia, Italy)
V.V. Maslyuk (Uzhgorod, Ukraine)
I. Mezei (Cluj Napoca, Romania)
R.V. Tymchyk (Uzhgorod, Ukraine)
G.S. Yevdokimova (Uzhgorod, Ukraine)
Jolón Turóczi. (Uzhgorod, Ukraine)
Diana Himics (Uzhgorod, Ukraine)

Scope and Programme

Non-Euclidean Geometry in Modern Physics and Mathematics is a series of biennial conferences initiated by the Bogolyubov Institute for Theoretical Physics, National Academy of Sciences of Ukraine. Its shorthand subtitle is BGL, from the abbreviation of the names of Bolyai, Gauss, Lobachevsky – the founders of a new geometry.

The programme of this conference will include talks on various applications of non-Euclidean geometry in modern physics and mathematics. Among them there will be the recent developments in astroparticle physics, namely the evolution of the early Universe, the problem of the dark matter and possible geometrical interpretations, the brane universe, the possibilities of detecting mini-black holes and higher dimensions in cosmic rays and/or at accelerator (LHC) energies, the quantum groups and quantum deformations. All these topics are closely related to the non-Euclidean geometry. The mathematical part of the discussion will include recent applications of non-Euclidean geometry to different topics of modern mathematics – geometry, algebra, dynamical systems and other fields. The scientific programme will consist of Invited Plenary Lectures and Progress Reports. Plenary talks are of general interest to all participants.

Conference Site

BGL-8 International Conference on Non-Euclidean Geometry in Modern Physics and Mathematics

8-th Bolyai-Gauss-Lobachevsky Conference, will be held on 22-25 May 2012 in Uzhgorod, Transcarpathia, Ukraine.

The conference venue will be the Institute of Electron Physics, National Academy of Sciences of Ukraine (<http://www.iep.org.ua/>). Plenary lectures will be held in the Conference Hall of the Institute of Electron Physics (Universitetska str. 21)

Abstracts

The Abstracts will be reviewed by the Programme Committee. It is expected that accepted abstracts will be published online at the Conference site.

Deadlines

Distribution of the Second Announcement: January 2012

Deadline for Abstracts submission: 14 April 2012

Deadline for registration: 16 May 2012

Second Announcement

The Second Announcement will include guidelines for abstract submission, the preliminary programme, as well as detailed information about travel, accommodation and weekend tours. It will be available on the conference web page and will be mailed to those participants who request it using the conference e-mail address available on the web page.

Homepage: <http://www.bgl.iep.org.ua/>

Contacts

Zoltan Tarics,

Email: bgl8.2012@gmail.com

Phone: +380 (312) 643524 , +380 (312) 643876

Phone/Fax:+380 (312) 643650

City

History and Present: Uzhgorod is a compact city of about 120000 inhabitants, the capital of **Transcarpathia** (Subcarpathia when viewed from the West). The region is located on the western slope of the East Carpathian Mountains, meeting the Great Danube (Hungarian) plane. On the west it borders Poland, Slovakia, Hungary and Romania. Protected by the Carpathian Mountains, it has mild climate, favouring wine production. In May one can enjoy the flourishing of sakura and magnolia trees.

Uzhgorod is a university city, a considerable part of its inhabitants being involved in numerous secondary and high schools and research centers, among which the Uzhgorod National University, the Transcarpathian State University and the Institute of Electron Physics (Ukrainian National Academy of Sciences) are the biggest ones. Uzhgorod (Ungva'r in Hungarian) is a multinational and multicultural city with its rich history that includes over 1000 years of adherence to Hungary and years (1920–1939) of Czechoslovak dominance. In 1939–1944 Transcarpathia returns to Hungary, later, in 1945 becoming part of the Soviet Union, and of Ukraine, after 1991. Close links with the Slavonic, Hungarian and German cultures created a unique milieu in the town and in the region, with castles, museums, theatres and numerous cafés, attracting visitors both by their hospitality and superb coffee. Among the tourist sights, the local **Boksay Art Museum**, exhibiting and storing pictures of the unique and world-wide esteemed Transcarpathian school (Erdélyi, Boksay, Kassay, Koczka, Glück, Manajlo), is worth to visit. Transcarpathia's history is linked also with a number of castles, including that in Uzhgorod (home of a museum) and the famous castle in **Mukachevo (Munkács)**, that played a key role in the Hungarian insurrection of the 18-th century, by **Ferenc Rákóczi II**.

Uzhgorod's Mittleeuropisch location and atmosphere ideally fit the BGL spirit.

An excursion to the mountainous part of Transcarpathia with a picnic is scheduled during the Conference.

Institute of Electron Physics. Institute was established in 1992 on the basis of the Uzhgorod Department of the Institute for Nuclear Research. The research work in the Institute is carried out in three main fields:

- *elementary processes and effects stimulated by interactions between electron, ion, photon, atomic and molecular beams of low and intermediate energies as well as by interactions of the beams with condensed matter;*
- *physical processes and mechanisms of excitation in gas lasers; development of new lasers; optical materials and devices for quantum electronics;*
- *working out and studies of physical and chemical fundamentals and technology of obtaining materials, promising for a broad class of electronic devices.*

Scientific work in the above directions is pursued on the modern level, the obtained results are being often unique in Ukraine and the countries of the former Soviet Union and correspond to the level of foreign scientific laboratories. Now IEP is recognized in our country and abroad as a distinguished scientific centre.

Transportation:

Uzhgorod can be reached by train, car or air. Daily direct **flights from Kiev** are available. There are direct **trains** connecting Uzhgorod with Kiev and Moscow. The checking point on the frontier with Hungary or Slovakia is **Chop (Csap)**, having train connection with Budapest, Bratislava and Prague. The same is true for cars. Chop is 25 km away from Uzhgorod. The Institute of Electron Physics, home of the Conference, is located at Uzhgorod's periphery, at the University area, close to the airport. It can be reached from any point of Uzhgorod by bus (about 3 UAH or 3 Eurocents) and taxi for only 20 UAH (2 EUR).

There are no limitations in changing money in Ukraine, the present exchange rate being about 8 UAH for 1 USD and 11 UAH for 1 EUR.

Accommodation

IMPORTANT: EU, Swiss, Japanese, USA and Canadian citizens do NOT need Ukrainian entry visas.

Some of recommended Uzhgorod hotels:

Hotel Old-Continent: <http://hotel-oldcontinent.com>, **Hotel Uzhgorod:** <http://www.hoteluzhgorod.com>,

Hotel Izumrud I: http://www.tripadvisor.com/Hotel_Review-g298059-d596511-Reviews-Hotel_Izumrud-Uzhhorod.html, **Hotel Olymp:** <http://hotel-olymp.com/>,

Hotel-rancho Golden Hill's: http://eastbooking.com/hotel/Zolotaya_gora