

Final Call for Papers
PLEASE DISTRIBUTE
16TH INTERNATIONAL CONFERENCE
ON REVERSIBLE COMPUTATION

Toruń, Poland, July 4 - July 5 , 2024
Complete information about this event is
available at <http://rc2024.mat.umk.pl>
Contact e-mail: rc2024@mat.umk.pl



Important Dates

Final abstract registration deadline: **February 18th, 2024, AOE**
Final submission deadline: **February 25th, 2024 AOE**
Notification to authors: **March 22nd, 2024**
Final version: **April 14th, 2024, AOE**

Topics: reversible computing, concurrency theory, programming, languages

Reversible computation has a growing number of promising application areas such as low power design, coding/decoding, debugging, testing and verification, database recovery, discrete event simulation, reversible algorithms, reversible specification formalisms, reversible programming languages, process algebras, and the modeling of biochemical systems. Furthermore, reversible logic provides a basis for quantum computation with its applications, for example, in cryptography and in the development of highly efficient algorithms. First reversible circuits and quantum circuits have been implemented and are seen as promising alternatives to conventional CMOS technology.

The conference will bring together researchers from computer science, mathematics, and physics to discuss new developments and directions for future research in Reversible Computation. This includes applications of reversibility in quantum computation. Research papers, tutorials, tool demonstrations, and work-in-progress reports are within the scope of the conference. Invited talks by leading international experts will complete the program.

The conference is indexed by: The Computing Research and Education Association of Australasia (CORE Inc.), Google Scholar and The DBLP Computer Science Bibliography.

Contributions on all areas of Reversible Computation are welcome, including (but not limited to) the following topics:

Applications	Information Theory
Architectures	Physical Realizations
Algorithms	Programming Languages
Bidirectional transformations	Quantum Computation
Circuit Design	Software
Debugging	Synthesis
Fault Tolerance and Error Correction	Theoretical Results
Hardware	Testing

Interested researchers are invited to **submit**

- **full research papers** (16 pages maximum),
 - **tutorials** (16 pages maximum), as well as
 - **work-in-progress** or tool demonstration papers (6 pages maximum)
- in Springer LNCS format.

Additional material intended for reviewers but not for publication in the final version (for example, details of proofs) may be placed in a clearly marked appendix that is not included in the page limit. Reviewers are at liberty to ignore appendices and papers must be understandable without them. Contributions must be written in English and report on original, unpublished work, not submitted for publication elsewhere. Submissions not adhering to the specified constraints may be rejected without review. Each paper will undergo a peer review of at least 3 anonymous reviewers. All accepted papers will be included in the conference proceedings. Papers can be submitted electronically in PDF via the RC 2024 interface of the EasyChair system:

<https://easychair.org/conferences/?conf=rc2024>

Invited speaker

Amr Sabry

Indiana University, USA



Program co-chairs

Łukasz **Mikulski** Nicolaus Copernicus University in Toruń, Poland
Torben Ægidius **Mogensen** University of Copenhagen, Denmark

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Kamila **Barylska** (chair), Anna **Gogolińska**, Łukasz **Mikulski**, Marcin **Piątkowski**
Nicolaus Copernicus University in Toruń, Poland

Accommodation

Toruń is a tourist town and offers a wide range of accommodations. The old town is located within a walking distance (about 7 minutes) from the event venue and dozens of hotels with a wide range of prices are available. We strongly recommend to find a suitable accommodation through the online accommodation booking website www.booking.com. You may also consider staying in one of many different private apartments which are available at: Airbnb.

Please note that July falls within the tourist season in Toruń, so it is advisable to book an accommodation well in advance of the event.

City of Toruń



City of Toruń

Toruń, one of the oldest cities in Poland, is located on the Vistula river in the northern part of the country, and is best known as the birthplace of the astronomer **Nicolaus Copernicus**. In 1997 the medieval part of the city was designated a **UNESCO World Heritage Site**, and in 2007 the Old Town in Toruń was designated as one of the **Seven Wonders of Poland**.



National Geographic rated the old town market and the Gothic town hall as one of the **30 Most Beautiful Places in the World**. Toruń has many monuments of architecture beginning from the Middle Ages. Most of them have an almost intact medieval layout.

Toruń has the largest number of preserved Gothic houses in Poland, many with original wall paintings or wood-beam ceilings from the 16th to the 18th century. Among the most important monuments are: the Cathedral John the Evangelist and John the Baptist (14th century), St. Mary Church (14th century), the Old Town Hall (12th-16th century) - one of the most monumental town halls in Central Europe, ruins of the city fortifications (12th-15th century), and the 15th-century Gothic house (now a museum) where Nicolaus Copernicus was born.



Travel

By plane: The nearest airports are in (60 km) Bydgoszcz (low cost airlines across Europe), Poznań airport (140 km, low cost airlines across Europe), Gdańsk airport (~180 km, low cost airlines across Europe, connected by motorway) and Warsaw - Okęcie airport - long haul airlines (230 km) - or Modlin airport.

By train: Polish State Railways operate train connections to Toruń from Warsaw, Poznań, Gdańsk, Łódź, Katowice and Olsztyn. Toruń's main railway station is Toruń Główny (positioned across the river Vistula from the Old Town).

By car: A1 motorway runs between Toruń and Gdańsk - quick way (170 km). Warsaw can be reached via A1+A2 motorways (260 km).

By bus: There are many connections to Toruń. Bus station is a short walk from the Old Town.

Nicolaus Copernicus University



The Nicolaus Copernicus University in Toruń (NCU) is one of the largest universities in Poland, currently comprising 17 faculties providing courses for almost 30 000 students, offering education in over 80 fields of study. QS World University Ranking has placed NCU in the top 4% of universities in the world. In 2019 the university received the title of a research university in the "Excellence Initiative - Research University" competition organized by the Ministry of Science and Higher Education.

Faculty of Mathematics and Computer Science (the venue of the event)

The Faculty of Mathematics and Computer Science was founded in 1993, but, mathematical sciences were developed in NCU from the very beginning of its existence, first, within departments, later, in the Institute of Mathematics – a part of the Faculty of Mathematics, Physics and Chemistry. In the 1960s a new specialization, a 'numerical division', was established. It can be regarded as the beginning of the computer science studies in Toruń.



Well-equipped laboratories, lecture halls, and the library providing access to the large collection of resources, together with free wireless Internet access in the halls, form a modern infrastructure. The building of the Faculty is within a 7 minute walking distance from the Old Town, which offers a wide range of restaurants and affordable hotels.



NICOLAUS COPERNICUS
UNIVERSITY
IN TORUŃ
Faculty of Mathematics
and Computer Science

