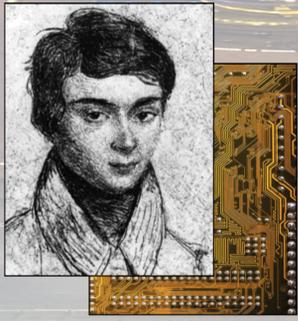


International Workshop on the Arithmetic of Finite Fields

WAIFI 2022

Chengdu, China,
August 29-September 2, 2022

www.waifi.org



Call for Papers

This workshop is a forum of mathematicians, computer scientists, engineers and physicists performing research on finite field arithmetic, interested in communicating the advances in the theory, applications, and implementations of finite fields. The workshop will help to bridge the gap between the mathematical theory of finite fields and their hardware/software implementations and technical applications.

WAIFI 2022 will be held in Chengdu, China, as a **virtual meeting**.

The topics of WAIFI 2022 include but are not limited to:

Theory of finite field arithmetic:

- Bases (normal bases, duality, complexity ...)
- Polynomial factorization, irreducible polynomials
- Primitive polynomials, permutation polynomials
- Special functions over finite fields (Boolean functions, APN functions, ...)
- Curves over finite fields
- Algebraic dynamical systems over finite fields

Hardware/Software implementation of finite field arithmetic:

- Optimal arithmetic modules
- Design and implementation of finite field arithmetic processors

- Design and implementation of arithmetic algorithms
- Pseudorandom number generators
- Hardware/Software Co-design
- IP (Intellectual Property) components
- Field programmable and reconfigurable systems

Applications of finite fields:

- Cryptography
- Communication systems
- Error correcting codes
- Finite geometry
- Quantum computing

Important Dates

- **Submission deadline (EXTENDED): May 25, 2022 (GMT-time)**
- Acceptance notification: **June 12, 2022**
- Deadline for submitting revised manuscripts: **June 17, 2022**
- **Final pre-proceedings version due: June 26, 2022**
- Deadline for sending pre-recorded videos: **July 24, 2022**
- Final post-proceedings version due: **September 25, 2022**

Workshop Proceedings

The proceedings will be published in the **Springer Lecture Notes in Computer Science (LNCS)** series after the workshop as post-proceedings.

Authors are invited to submit **original research** papers that has not been previously published or submitted, before WAIFI's notification date, for publication elsewhere. A detailed description of the electronic submission procedure will appear on the WAIFI webpage. The submission should begin with a **title**, **author list**, a short **abstract**, and a list of **keywords**. The paper should be at most 16 pages, using at least 11-point font and reasonable margins.

Notice that in order to be included in the proceedings, the authors of an accepted paper must guarantee to present their contribution at the workshop.

More detailed information on instructions for authors, paper submission, technical program, accommodation, travel and registration will be posted on the Workshop web site: <http://www.waifi.org>.