



# Workshop on the Arithmetic of Finite Fields WAIFI 2008

www.waifi.org

Siena, Italy  
July 6-9, 2008

## 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.



This will be the second WAIFI workshop. WAIFI 2007 was held in Madrid (Spain). The topics of WAIFI 2008 include but are not limited to:

### Theory of finite field arithmetic:

- Bases (canonical, normal, dual, etc.)
- Polynomial factorization, irreducible polynomials
- Primitive elements
- Prime fields, binary fields, extension fields, etc.
- Elliptic and hyperelliptic curves

### Hardware & software implementations:

- Design & implementation of finite field processors
- Design & 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
- Quantum computing

Authors are invited to submit **original research** papers. Electronic submission will be strongly encouraged. 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.

- Submission deadline: **February 18th, 2008**
- Acceptance notification: April 4th, 2008
- Final version due: April 14th, 2008

The WAIFI 2007 proceedings appeared as a volume of the Springer **Lecture Notes in Computer Science (LNCS)**. We expect the same for WAIFI 2008.

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>

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