# ICM 1998, Berlin, Aug. 18–27

## Abstracts of Short Communications and Posters

### Section:

## 20. Special Activities of the ICM 1998

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Cannon, John, University of Sydney , Australia
**Magma V2.3**
Magma is an integrated system for computing in algebra, number theory, group theory, geometry and combinatorics. It supports mathematical objects and morphisms as fundamental objects and provides a mathematically rigorous environment. The user interacts with the system via a high-level programming language. Computationally expensive algorithms are optimized for speed, as are basic arithmetic operations. Magma comes with over two dozen databases for number theory and group theory. Extensive on-line documentation is provided with the system and technical support and regular upgrades are available from the developers. Magma provides functions in the following areas: group theory; algebraic number theory; integer factorization and primality testing; commutative algebra; finite dimensional algebras; linear algebra; power series; modules; lattices; elliptic curves; graph theory; incidence structures; finite planes; enumerative combinatorics; and coding theory.