

PARI/GP

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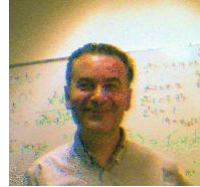
PARI/GP



- PARI/GP is a Computer Algebra System
- Developed by Henri Cohen from the University of Bordeaux
- Nowadays it is distributed under the Gnu General Public License and Karim Belabas takes care of it with the help of many volunteers.

Henri Cohen

- Born 6. 8. 1948 (in France)
- Studied from 1966 to 1970 at the Ecole Normale Superieure
- 1978: Professor at the University of Grenoble
- 1981 Professor at the University of Bordeaux
- He is now Professor Emeritus.



Henri Cohen

- takes interest in computer applications in number theory since the late 60's.
- 1981: implemented and enhanced the APRCL-prime number test in cooperation with Hendrik Lenstra.
- wrote several books about Algorithmic Number Theory.
- developed PARI 1985.



Concept

- **PARI** is a C-Library for efficient computations
- **gp** is an easy-to-use interactive command line interface giving access to the PARI functions
- **GP** is the name of gp's scripting language which can be used to program gp
- **gp2c** is a GP-to-C compiler, which compiles GP scripts into the C language. The advantage of this is that gp2c-compiled scripts will typically run three to four times faster.

Where to get?

- Pari/GP can be downloaded for free at the website: <http://pari.math.u-bordeaux.fr/>
- There are several different versions available for all platforms (stable and development versions).
- Also the gp2c Compiler and several extras are linked there.
- Bug reporting and the possibility to help develop the program further is also available.
- Subversion is used for source control.

Help

- On the website there is a FAQ available as well as online-documentation.
- After installing the program, there also is a lot of information available in the „doc“ folder in the program directory. For example a „User’s Guide“ and a „Tutorial“.
- In the command shell help is provided with the command `?‘xx‘` (with ‘xx‘ being the variable/function).
- Also `??‘xx‘` can provide online help.

Examples

- Let us take a closer look at the program now.