

Department of Computer Sciences
Purdue University
West Lafayette, IN 47907
June 25, 2003

Several “Wanted” numbers were factored on Page 90, all by the Number Field Sieve. From the third edition wanted lists, NFSNET” factored the “Most Wanted” numbers 2,673–, 5,298+ and 12,178+. Only 10,223– remains unfactored on this list.

From the wanted lists issued with Page 89 last March, CWI factored the “Most Wanted” number 12,179– and NFSNET” factored the “More Wanted” number 12,197–.

Sean Irvine has been hard at work factoring “Smaller-but Needed” numbers. He split 11,282+, 6,738M and 6,738L. He also finished a few small cofactors that remained after others found small factors of medium-sized numbers.

CWI means Henk Boender, Stefania Cavallar, Walter Lioen, Peter Montgomery, Herman te Riele and Dik Winter at the Centrum voor Wiskunde en Informatica in Amsterdam. ECMNET means Paul Zimmermann, Alex Kruppa, Torbjörn Granlund, Michel Quercia, Witold Grabysz, Vilmar Trevisan and many helpers who use the GMP-ECM program of Kruppa and Zimmermann. NFSNET” is a new group for factorers lead by Jeff Gilchrist, Don Leclair, Paul Leyland and Richard Wackerbarth and with contributions from many volunteer workers. See the URL <http://www.nfsnet.org>.

There were two new champions for factoring Cunningham numbers on this page. Recall that a champion is one of the best two records in its class. The P52 factor of 2,773– was a new champion (second place) for ECM. It’s place on the champions list was short-lived, as it was pushed off a few days later by the new first place champion for ECM, a P57 factor of 2,997–.

The first holes done on Page 90 are in # 4778, # 4780, # 4802 and # 4809. The only second hole done on Page 90 is in # 4819. No third or fifth hole was done on Page 90. The only fourth hole done on Page 90 is in # 4801.

The smallest new factors reported on Page 90 have 37 digits. See # 4788, # 4795 and # 4817. The largest number factored on Page 90 has 383 digits. See # 4784.

See the URL <http://www.prothsearch.net/fermat.html> for Wilfrid Keller’s list of all known Fermat factors.

See the URL <http://www.utm.edu/research/primes/largest.html> for Chris Caldwell’s list of all of the largest known Mersenne primes.

See the URL <http://www.cerias.purdue.edu/homes/ssw/cun/index.html> for the online Cunningham book. The full text is available at the AMS web site: <http://www.ams.org/online.bks/comm22>

If your address changes, please tell me.

Keep the factors coming!

Sam Wagstaff