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Five "More Wanted" number from the wanted lists issued with Page 113 were factored on Page 115. Batalov and Dodson factored 2,1706M, 3,559+, 2,913+ and 2,913−. NFS@Home factored 5,377+. All five were done by the Special Number Field Sieve.

Three "Most Wanted" numbers from the wanted lists issued with Page 114 were factored on Page 115. NFS@Home factored 2,887− and 2,887+, both by the SNFS. Dodson factored 6,344+ by the Elliptic Curve Method.

One "More Wanted" number from the wanted lists issued with Page 114 was factored on Page 115. NFS@Home factored 2,1714L by SNFS.

Three "Smaller-but-Needed" numbers were factored on Page 115. Batalov and Dodson factored 5,391− and 6,370+, and Texas State HPC factored 5,805L, all by the General NFS.

New wanted lists are enclosed.

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. NFS@Home is a group led by Greg Childers.

There were three new champions for factoring Cunningham numbers on this page. Recall that a champion is one of the best two records in its class. The C180 of 2,2254L split in # 5827 was a new champion (second place) for General Number Field Sieve by size for a short time. It was removed when the C192 of 2,1175− in # 5852 became the new champion (first place) for General Number Field Sieve by size. The incredible P73 of 2,1181− shown in # 5858 is the new champion (first place) for the Elliptic Curve Method. A list of recent champions is enclosed.

The first holes done on Page 115 are in # 5826, # 5828, # 5829, # 5832, # 5835 and # 5841. The second holes done on Page 115 are in # 5837, # 5840 and # 5856. The third holes done on Page 115 are in # 5831, # 5836 and # 5838. The fourth holes done on Page 115 are in # 5830 and # 5846. The fifth holes done on Page 115 are in # 5843, # 5844, # 5848 and # 5849.

The smallest new factor reported on Page 115 has 50 digits. See # 5833. The largest number factored on Page 115 has 291 digits. See # 5858.

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

No new Mersenne primes have been found since the last page. The current largest known prime is $2^{43112609} - 1$. See the URL http://primes.utm.edu/primes/ for Chris Caldwell's database of the largest known primes (updated hourly).

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/conm22 .

Please send me any address changes.

Keep the factors coming!

Sam Wagstaff