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One "Most Wanted" number from the wanted lists issued with Page 122 was factored on Page 124. NFS@Home factored 2,1000+ by the Special Number Field Sieve.

Three "More Wanted" numbers from the wanted lists issued with Page 122 were factored on Page 124. Batalov and Dodson factored 6,373− and 11,271+ and NFS@Home factored 2,1061−. All were done by SNFS.

Five "Smaller-but-Needed" numbers were factored on Page 124. Some of these became "Smaller-but-Needed" when the Base 5, 6 and 11 extensions were added to the regular tables. Batalov and Dodson factored 3,775−, 6,416+ and 6,446+ by the General Number Field Sieve. Wagstaff factored 11,321+ by GNFS. NFS@Home and Pinho factored 5,492+ by SNFS.

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 six new champions for factoring Cunningham numbers on this page. Recall that a champion is one of the best two records in its class. The C320 of 2,1061− split in # 6132 was a new champion for the Special Number Field Sieve by size and by SNFS difficulty. The P75 of 11,304+ in # 6131 was a new champion for ECM. It was pushed into second place ten days later by the P79 of 11,306+ in # 6135. Page 124 shows many huge penultimate factors. The P133 of 5,433+ in # 6116 was a new champion in this category. It became the second place champ when the P143 of 2,1061− in # 6132 was discovered. A list of recent champions is enclosed.

The first holes done on Page 124 are in # 6115 and # 6142. The only second hole done on Page 124 is in # 6118. No third holes were factored on Page 124. The only fourth hole done on Page 124 is in # 6125. The only fifth hole done on Page 124 is in # 6124.

The smallest new factor reported on Page 124 has 55 digits. See # 6128. The largest number factored on Page 124 has 320 digits. See # 6132.

See the URL `http://www.prothsearch.net/fermat.html` for Wilfrid Keller's list of all known Fermat factors. Recently, new factors were found for F_m with $m = 86, 166, 943, 3703, 4265, 352279$ and 906108.

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 as an ebook at: `http://www.ams.org/publications/ebooks/ebooks` .

Please send me any address changes.

Keep the factors coming!

Sam Wagstaff