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One "Most Wanted" number from the wanted lists issued with Page 141 was factored on Page 142. NFS@Home factored 2,1091+ by the Special Number Field Sieve.

Five "More Wanted" numbers from the wanted lists issued with Page 141 were factored on Page 142. NFS@Home factored 2,1097+, 2,2194L, 2,2194M and 2,2206L by the SNFS. yoyo@home factored 2,2222L by the Elliptic Curve Method.

Two "Smaller-but-Needed" numbers from the wanted lists issued with Page 141 were factored on Page 142. NFS@Home factored 2,2694M by the General NFS. NFS@Home and Mersenneforum factored 2,2694L 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. Mersenneforum is a group with a section interested in factoring. See http://www.mersenneforum.org . NFS@Home is a group led by Greg Childers. yoyo@home is a distributed group in Germany.

There was one new champion for factoring Cunningham numbers on this page. Recall that a champion is one of the best two records in its class. The number 2,2246M C221 in # 6665 is the new champion (first place) for the General Number Field Sieve by size. A list of recent champions is enclosed.

The first holes factored on Page 142 are in # 6670, # 6671, # 6673, # 6679, # 6683 and # 6688. No second hole was factored on Page 142. The only third hole factored on Page 142 is in # 6690. The only fourth hole factored on Page 142 is in # 6677. The only fifth hole factored on Page 142 is in # 6668.

The smallest new factor reported on Page 142 has 64 digits. See # 6690. The largest number factored on Page 142 has 307 digits. See # 6670.

See the URL http://www.prothsearch.net/fermat.html for a list of all known Fermat factors. One new factor was found since the last page.

No new Mersenne prime was found since the last page. The current largest known prime is $2^{82589933} - 1$. See the URL http://primes.utm.edu/primes/ for Chris Caldwell's database of the largest known primes (updated hourly).

See the URL http://homes.cerias.purdue.edu/~ssw/cun/index.html for the online Cunningham book.

Several tables have been extended since the previous letter.

Please send me any address changes.

Keep the factors coming!

Sam Wagstaff