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Three “Most Wanted” numbers from the wanted lists issued with Page 118 was factored on Page 119. Bos, Kleinjung, A. K. Lenstra and Montgomery factored 2,937– by the Elliptic Curve Method. NFS@Home factored 6,346+ and Batalov and Dodson factored 2,881+ by the Special Number Field Sieve.

No “More Wanted” numbers from the wanted lists issued with Page 118 were factored on Page 119.

Three “Smaller-but-Needed” numbers were factored on Page 119. Batalov and Dodson factored 3,605– and NFS@Home factored 2,1195+ by the General NFS. Raman factored 2,1910M by SNFS.

No 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. yoyo@home is a distributed group in Germany. (“Polybius” is the alias of the person whose machine found the factor.)

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 C261 of 2,1183– shown in # 5970 is the new champion (second place) for SNFS by SNFS difficulty. A list of recent champions is enclosed.

The first holes done on Page 119 are in # 5969 and # 5977. The only second hole done on Page 119 is in # 5964. The third holes done on Page 119 are in # 5959, # 5973, # 5978 and # 5983. The fourth holes done on Page 119 are in # 5963, # 5967 and # 5968. The only fifth hole done on Page 119 is # 5958.

The smallest new factor reported on Page 119 has 50 digits. See # 5960. (If we ignore the easy numbers from the base 3 extension, then the smallest new factor would have 55 digits. See # 5976.) The largest number factored on Page 119 has 290 digits. See # 5967. (Although that number was from the base 3 extension, it was actually quite hard to factor. But if we ignore the numbers from the base 3 extension, then the largest number factored would have 282 digits. See # 5959.)

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  $F_{2420}$  and  $F_{299}$ .

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](http://www.ams.org/online_bks/conm22).

John Selfridge died on October 31, 2010, at the age of 83. John got me involved in the Cunningham Project. In the late 1970s, he paid me to write a FORTRAN program to check the Cunningham tables, which were then stored as a deck of punch cards. While writing this program, I also did some much needed trial division up to  $2^{35}$  of all the composite numbers, and found some new factors. It was then that John and the other coauthors invited me to join them. John always enjoyed preparing the Wanted lists of Cunningham composites whose factors were most desired. One time he gave me the Wanted lists at 10 PM from a train moving through Lafayette, Indiana, on its way from Chicago to Washington, DC. I ran along beside the train, which was moving slowly, and he handed the list to me. John loved to travel by train. For a number of years until a year or two ago, I visited him in his nursing home to discuss these lists. We will miss John.

Please send me any address changes.

Keep the factors coming!

Sam Wagstaff