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No “Most” and seven “More Wanted” numbers were factored on Page 99 from the wanted lists issued with Page 97, all with the Special Number Field Sieve. Silverman factored 2,749+, 2,1322M and 2,1334L. NFSNET” factored 2,751+ and 2,760+. Using programs of Franke and CWI, as well as his own programs, Kruppa factored 3,443-. Aoki factored 6,271+.

Six “Smaller-but-Needed” numbers were factored on Page 98, all by Irvine and all by the General Number Field Sieve. They were 5,371-, 2,1342M, 7,350+, 2,1946L, 2,951+ and 2,2394M.

New wanted lists are enclosed.

CWI means Peter Montgomery, Herman te Riele and Willemien Ekkelkamp 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 group of factorers lead by Jeff Gilchrist, Don Leclair, Paul Leyland and Richard Wackerbarth and with contributions from many volunteer workers. See their 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. Zimmermann set a new record for Pollard $p - 1$ with a 58-digit factor of 2,2098M. Aoki and Shimoyama set a new record (second place) for ECM with a 64-digit factor of 10,311-. A list of recent champions is enclosed.

The number 10,311-, factored by Aoki and Shimoyama, was the last composite repunit (111...111) remaining in the Cunningham table.

The first holes done on Page 99 are in # 5225, # 5251, # 5266 and # 5269. The second holes done on Page 99 are in # 5229, # 5241 and # 5260. The only third hole done on Page 99 is in # 5233. The only fourth hole done on Page 99 is in # 5247. The only fifth hole done on Page 99 is in # 5258.

The smallest new factor reported on Page 99 has 41 digits. See # 5240. The largest number factored on Page 99 has 311 digits. See # 5253.

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/conm22.

If your address is wrong, please tell me.

Keep the factors coming!

Sam Wagstaff