

5.6.5 Nopea Fourier-muunnos

“...a totally new approach to the problem [of computation] was required before the discrete Fourier transform could become a practical engineering tool. In 1965 Cooley and Tukey introduced the **fast Fourier transform (FFT)** in order to reduce the computational complexity.” (G. James, *Advanced Modern Engineering Mathematics*.)

“**1965:** James Cooley of the IBM T.J. Watson Research Center and John Tukey of Princeton University and AT&T Bell Laboratories unveil the **fast Fourier transform**. Easily the most far-reaching algorithm in applied mathematics, the FFT revolutionized signal processing. The underlying idea goes back to Gauss (who needed to calculate orbits of asteroids), but it was the Cooley–Tukey paper that made it clear how easily the Fourier transform can be computed.” (The Best of the 20th Century: Editors Name Top 10 Algorithms. *SIAM News*, Volume 33, Number 4, May 2000. <http://www.siam.org/siamnews/05-00/current.htm>)