

# A proof of the twin primes conjecture

Diego Liberati

Consiglio Nazionale delle Ricerche  
Istituto di Elettronica e Ingegneria dell'Informazione e delle Telecomunicazioni

Dipartimento di Elettronica, Informazione e Bioingegneria  
Politecnico di Milano

Piazza Leonardo da Vinci 32  
20133 Milano

Italy

Every natural number would be prime if it was not sieved by a multiple of a lesser prime.

Thus every prime other than 2 and 3 has to be in the form  $6k-1$  or  $6k+1$ : each of such two arrays can not contain a multiple of 2 or 3.

Both such arrays are infinite, but  $k$  stays finite even when tending to infinite: this is the key point.

In fact, both the amount of primes and composites, even exceeding  $k$ , stay also finite when  $k$  tends to infinite, thus multiples of primes greater than 3 can sieve each of the two said arrays in a finite amount of possibly different positions  $k$ , leaving anyway an infinite amount of positions  $k$  for which both  $6k-1$  and  $6k+1$  are primes, thus proving the conjecture.