§ Freeman Dyson 的話

利用 Quasicrystals(準晶體)證明黎曼猜想

Dan Shechtman 1982　Paul Steinhart　2019　超導石墨烯準晶體 2023

Leo Szilard 1898-1964：

Let your acts be directed toward a worthy goal，but do not ask if they will reach it；they are to be models and examples，not means to be an end。

準晶體的對稱性 從數學家的角度 一維的準晶體比二維的有趣，二維的比三維的有趣。

準晶體的數學定義：

A quasicrystal is a distribution of discrete point masses whose Fourier transform is a distribution of discrete point frequencies。

A quasicrystal is a pure point distribution that has a pure point spectrum。

Icosahedral rotation group 正二十面體對稱群

The two-dimensional quasicrystal with pentagonal symmetry is the Penrose tiling of the plane。

PV number

If the Riemann Hypothesis is true，then the zeros of the zeta-function firm a one-dimensional quasicrystal according to the definition。They constitute a distribution of point masses on a straight line，and their Fourier transform is likewise a distribution of point masses，one at each of the logarithms of ordinary prime-power numbers。

The classification of quasicrystals is a worthy goal。