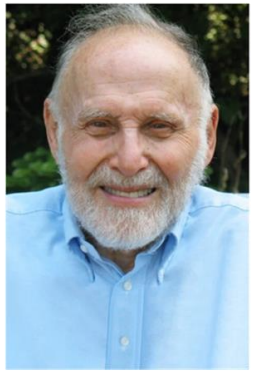
News Letter - 2018
MCE PHYSICS
Friday, November 30th 2018

Nobel Prize winners in Physics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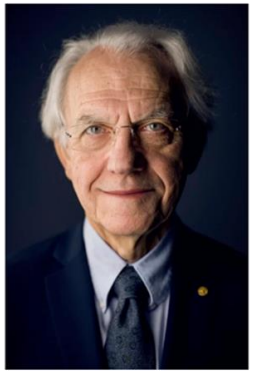
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Gérard Mourou
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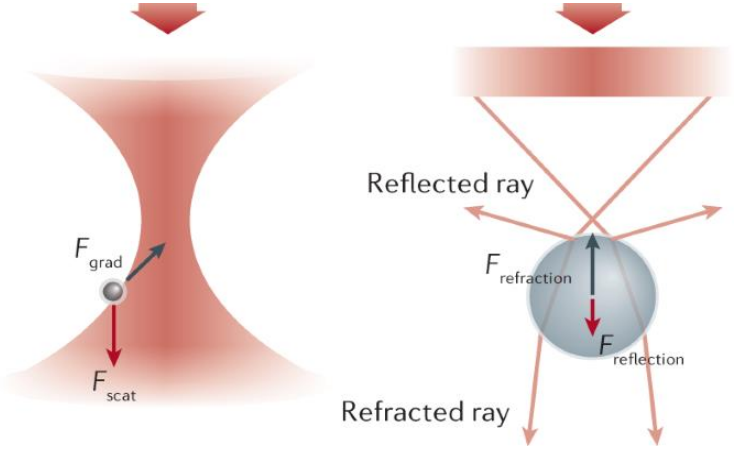

Optical tweezers have become the method of choice in single-molecule manipulation studies.

Source : Nature Reviews Methods Primers volume 1, Article number: 25 (2021)

The Nobel Prize in Physics 2018 was awarded "for groundbreaking inventions in the field of laser physics" with one half to **Arthur Ashkin** "for the optical tweezers and their application to biological systems", the other half jointly to **Gérard Mourou** and **Donna Strickland** "for their method of generating high-intensity, ultra-short optical pulses"

What are **Optical Tweezers?**

Optical Tweezers use light to manipulate microscopic objects as small as a single atom. The radiation pressure from a focused laser beam is able to trap small particles. In the biological sciences, these instruments have been used to apply forces in the pN-range and to measure displacements in the nm range of objects ranging in size from 10 nm to over 100 mm.

Source : **https://www.nobelprize.org/prizes/physics/2018/prize-announcement/**

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