**Prof. Gérard Albert Mourou**



Gérard Mourou was born at Alerville (Savoie France) on June 22 1944. He is, presently, Professor and Member of the Haut Collège at the Ecole Polytechnique (France) and A.D. Moore Emeritus Professor at the University of Michigan (Ann Arbor). He is also Director of the new center IZEST (International Center for Zettawatt-Exawatt Science and Technology) at the Ecole Polytechnique. He is a member or foreign member of several Academies including the US Academy of Engineering and the Russian Academy of Sciences He is the recipient of several Awards including the Quantum Electronics Award from IEEE-LEOS (2004) and the Charles H. Townes Award from the Optical Society of America (2009). In 2012 he received the award Chevalier de la Legion d’ Honneur République Française and, in 2018, the Arthur L. Schawlow Prize in Laser Science.

In 2018, he received from the Royal Swedish Academy of Science the Nobel Prize for Physics, together with Arthur Ashkin and Donna Strickland, the Nobel Prize for Physics “for groundbreaking inventions in the field of laser physics”. In fact, Gérard Mourou and Donna Strickland are considered to be co-inventors of the so-called Chirped Pulse Amplification (CPA) technique (their seminal paper refers to 1985).  This technique allowed the amplification of short laser pulses up to extremely high peak powers, paving the way to the field of high intensity laser-matter interaction. The CPA technique revolutionized the field of laser science and found new applications in different branches of physics, including nuclear and particle physics. This technique has been the gateway to attosecond science and to non-linear relativistic interaction. The availability of high peak power laser sources has allowed charged particle acceleration in high-gradient plasma structures, a way to build high performance accelerators of much smaller size than conventional devices. Adapted to the medical field, CPA based laser sources have led to new advances in refractive eye surgery.