Gérard Albert **Mourou**

Home address: 25 Avenue Reille Paris 75014 - France
Birth date: 22.06.1944 at Alberville, Savoie France

CITIZENSHIP: U.S. and FRANCE (Dual Citizenship)

- Directeur IZEST, International Center Zettawatt Exawatt Science and Technology
- Professor Haut College Ecole polytechnique
- A.D. Moore Distinguished University Professor University of Michigan
- Professor Physics University of Nizhny Novgorod

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EDUCATION

B.S., Physics, University of Grenoble, France, 1967
Thèse de 3eme cycle., ParisVI, France, 1970
Thèse d'Etat Physique, University of Paris VI France, 1973

PROFESSIONAL EXPERIENCE

- **Membre de l'US National Academy of Engineering**
- **Membre Etranger de l'Académie des Sciences Russe**
- **Membre Etranger de l'Académie des Sciences Autrichienne**
- **Membre Etranger de l'Académie de Sciences et Lettres Lombarde, Italie**
- **Fellow of the Optical Society of America**
- **Fellow of the IEEE**
- **Professeur Membre du Haut Collège de l'Ecole polytechnique 2010**
- **Professor Ecole polytechnique France 2005-2010**
- **Director Laboratoire d'Optique** Appliquée ENSTA/Ecole Polytechnique (France) 2005-2009

- **Director, Center for Ultrafast Optical Science, a National Science Foundation Science and Technology Center** located at the University of Michigan, 1991-2004 Litterature, Science & Arts, College of Engineering University of Michigan.
- **A.D. Moore Distinguished University Professor,** Department of Electrical Engineering and Computer Sciences, College of Engineering, University of Michigan, Ultrafast Science Laboratory, 1006 IST Building, 2200 Bonisteel, Ann Arbor, Michigan, 48109-2099,
- **Professor,** Institute of Optics, University of Rochester, Rochester, New York, March 1987 - 1989.
- **Division Director,** Ultrafast Science Division, Laboratory for Laser Energetics, Rochester, New York, July 1986 - 1988.
- **Associate Professor**, Institute of Optics, University of Rochester, Rochester, New York, September 1983 - March 1987.
- **Senior Scientist**, Laboratory for Laser Energetics, University of Rochester, Rochester, New York, October 1981 - 1988.
- **Group Leader**, Picosecond Research Group, Laboratory for Laser Energetics, University of Rochester, Rochester, New York, 1979 - 1988.
- **Scientist**, Laboratory for Laser Energetics, University of Rochester, Rochester, New York, 1977 - 1979.
- **Scientist**, Ecole Polytechnique, Paris, France, 1974 - 1977.
- **Postdoctoral Fellowship**, San Diego State University, San Diego, California, 1973 - 1974.
- **Scientific Cooperant,** Université Laval, Quebec, Canada, 1970 - 1973.

AWARDS

- 2018 Physics Nobel Prize recipient
  Recipient of the 2018 Arthur L. Schawlow Prize in Laser Science
- Recipient of the Berthold Leibinger 2016 Innovation Prize
- Recipient of the F. Ives/J. Quinn Award 2016 from the OSA
- Chevalier de la Legion d' Honneur République Française july 2012
- Recipient of the Chaire d' Excellence 2012 J. Beaulieu from Institut National Recherche Scientifique (Quebec)
- Recipient of the Einstein Chair 2010 from the Chinese Academy of Science
- Winner of the 2010 Open Grant Competition of the Russian Federation
- Recipient of the 2009 Charles H. Townes Award from the Optical Society of America
- Recipient of the 2007 Grand Prix Carnot from the French National Academy
- Recipient of the 2005 of the Physics of Quantum Electronics Lamb Medal
- Recipient of the 2004 Chaire d' Excellence from the French Minister of Research
- Recipient of the 2004 Quantum Electronic Award from IEEE-LEOS
- Recipient of the 2002 Russel Award from the University of Michigan (Highest Honor from the University)
- Recipient of the 2000 College of Engineering Stephen S. Attwood Excellence in Engineering award for the invention of the Chirped Pulse Amplification technique which opened up the field of Strong-field Physics and medical femtosecond surgery.

- Recipient of the 1999 D. Sarnoff Award from IEEE, for Pioneering contributions to high speed, high intensity optoelectronic measurement techniques, including electro-optic sampling and femtosecond high-voltage introducing the concept of Chirped Pulse Amplification for laser systems to boost optical power peaks to switching
- Recipient of the 1997 H. Edgerton Award from the SPIE, in Recognition of many significant contributions, both scientific and technical, to the Field Ultrafast Phenomena, foremost among these is the invention of Chirped Pulse Amplification, now used throughout the world in Ultrafast Laboratories.
- Recipient of the 1995 R. W. Wood Prize, from the OSA, for Contributions to the field of Ultrafast Optics in particular for bringing the peak power to unprecedented levels
- Honoris Causa Doctorate from the University of Bucharest 2012
- Honoris Causa Doctorate, University Laval 2005
- Honoris causa doctorate, University de Quebec, 1998
- Recipient of the 1991 Research Excellence Award, College of Engineering, University of Michigan
- Named the A. D. Moore Distinguished University Professor of Electrical Engineering and Computer Science, 1995
- Visiting Professor, Technical University of Vienna (Summer) 1996
- Honorary Professor, Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences, Xi'an, China, 1997
- Academic Advisor, State Key Laboratory of Transient Optics Technology, Xi'an, China, 1997
- Advisory Board Member of the Laboratoire d'Utilization des Lasers Intenses, Ecole Polytechnique, France, 1997
- Advisory Board Member for the Mathematical and Physical Sciences Directorate of the National Science Foundation, 1997
- Advisory Board Member for the NSF Nuclear/High Energy Physics, National Science Foundation Center of Excellence, 1997
- Advisory Board Member for the Center of Theoretical Optics
- Member of Editorial Board of *Laser Focus*
- Member of the Board of Editors for Applied Physics B
- Professor, Institut National de Recherche Scientifique, Universite du Quebec, Quebec, Canada, 1990
- Visiting Professor, Sept. - Dec. 1994 (sabbatical), University of Tokyo, Japan
- Professor of Physics - Chaire Municipale, 1994, Université Joseph Fourier at Grenoble, France
- Chevalier de l'ordre des Palmes Académiques

PUBLICATIONS; Publications 387, H index 91 (Google Scholar)

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G. S. Sarkisov, V. Yu. Bychenkov, V. N. Novikov, V. T. Tikhonchuk, A. Makismchuk, S. -Y. Chen, R. Wagner, G. Mourou and D. Umstadter, ``Self-focusing, channel formation and high-energy ion generation in interaction of an intense short laser pulse with a He jet,'' Phys. Rev.E 59 7042 (1999).

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In one aspect the invention provides a method for laser induced breakdown of a material with a pulsed laser beam where the material is characterized by a relationship of fluence breakdown threshold (Fth) versus laser beam pulse width (T) that exhibits an abrupt, rapid, and distinct change or...

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