List of publications -- Michael Liberman (opus-databasen http://opus.uu.se/)

I. Books, Monographs

1. Michael A. Liberman "Combustion Physics: Flames, Detonations, Explosions, Astrophysical Combustion and Inertial Confinement Fusion", 610pp., 190 illustr. **Springer-Nature 2021**. ISBN 978-3-030-85138-5 (eBook: https://doi.org/10.1007/978-3-030-85139-2).
2. Michael Liberman "Introduction to Physics and Chemistry of Combustion", 360 p. 136 illus., Hardcover, Springer-Verlag, 2008. ISBN: 978-3-540-78758-7. *Cites 154*.
3. M.A. Liberman, J. DeGroot, A. Toor, R. Spielman "Physics of High-Density Z-pinch Plasmas", 288 pp., 156 illustr., Springer-Verlag, 1998 (2012). *Cites 266*.
4. M.A. Liberman, J. DeGroot, A. Toor, R. Spielman "Physics of High-Density Z-pinch Plasmas", 288 pp., 156 illustr., Chinese edition, China 2001.
5. M.A. Liberman, A. Velikovich "Physics of Shock Waves in Gases and Plasmas", 385pp., 91 illustr., Springer-Verlag, Berlin - New York, 1985. *Cites 178*.
6. M.A. Liberman, A. Velikovich "Physics of Shock Waves in Gases and Plasmas", Nauka, Academic press, Moscow 1985 (in Russian).

II. Chapters in books

1. The gravitation law, in "Physics of Cosmos", Nauka, Academic press, Moscow 1976.
2. The relativistic quantum numbers, ibid.
3. Wave functions and the Pauli exclusion Principle, ibid.
4. Relativistic wave equations, ibid.
5. Self-similar dynamics of high density Z-pinches, , in "Dynamics and Stability of Plasma Systems", MIPT, Moscow 1990.
6. Dynamic Stability of Plasma Liners and Z-pinches, ibid.
7. Suppression of Z-pinch instabilities due to the mass accretion in snowplow model, ibid.
8. Suppression of the Rayleigh-Taylor Instabilities by Convection and Dissipation in the Laser Accelerated Thin Foil Targets, ibid.
9. Analytical Solutions for the Rayleigh-Taylor Instability Growth Rate in case of Smooth Density Gradients and Convection Flow, in "Dynamics and Stability of Plasma Systems", ibid.
10. Terms Splitting and Binding Energy of the Hydrogen Molecule in Ultrahigh Magnetic Fields, ibid.
11. Active Flow and Combustion Control 2014, Springer, 2015.

III. Books Edited and Translated

1. "Quantum Electronics", Encyclopedia of Sciences, Encyclopedia Publ. Co. 1979.
2. "Formation of the Cooper Pair and Nature of the Superconducing Current", by V.F. Weisskopf, Nauka, Moscow 1983.
3. "Quantum Theory of Magnetism", by R.M. White, MIR, Moscow 1985.

Total publications ≈ 400

Invited Lectures on the International Conferences: ≈40

Lectures on the International Schools: ≈8

IV. Articles in refereed journals: over 350; **Conference Proceedings**: Over 150; Papers: 478, Citations: 6068; Hirsch h-index: 41

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1. C. Qian, M. A. Liberman, Influence of Chemical Kinetics on Tulip Flame Formation in Highly Reactive (H_2/Air) and Low Reactive (CH_4/Air) Mixtures. Energies **18** (4) (2025) pp. 885(1-20) https://doi.org/10.3390/en18040885.

2. C. Qian, M. A. Liberman, The influence of flame-pressure waves collisions on the development and evolution of tulip flames. Acta Astr. Vol. 231 (June 2025), in press.

3. Liberman M., Qian C., Physical mechanism of tulip flames formation and evolution: Role of flame-pressure waves collisions and tubes aspect ratios. Proceedings of 11th International Seminar on Fire and Explosion Hazards, Rome, 15-20 June 2025.

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9. A.F. Andreev, S.S. Gershtein, A.V.Gurevich, et al. In Memory of Lev Petrovich Pitaevskii. Uspekhi Fiz. Nauk (Advances in Physical Sciences) vol. **191**, №2, Февраль 2023 (in Russian)

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