

## Mark Edelman's Curriculum Vitae

### PERSONAL

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### EDUCATION

1991 Ph.D. in Astrophysics

Title of thesis: Accretion shock waves in AM Her objects and cloud-cloud collisions,

Odessa University, Odessa, USSR







## PUBLICATIONS

### Books edited:

M. Edelman, E. Macau, and M. A. F. Sanjuan (eds.), Chaotic, Fractional, and Complex Dynamics: New Insights and Perspectives; Series: Understanding Complex Systems, Springer, eBook, 2018, <http://www.springer.com/us/book/9783319681085>

### Book Chapters:

1. M. Edelman,  $\alpha$ -law memory: direct introduction and Eulerian numbers, fractional maps, and fractional difference maps, in: A. Kochubei and Y. Luchko (eds.), *Handbook of Fractional Calculus with Applications, Volume 2, Theory*, De Gruyter, Berlin, 2018 (accepted).
2. M. Edelman,  $\alpha$ -law memory: direct introduction and Eulerian numbers, fractional maps, and fractional difference maps, in: A. Kochubei and Y. Luchko (ed.), *Handbook of Fractional Calculus with Applications, Volume 2, Applications in Physics*, De Gruyter, Berlin, 2018 (accepted).
3. M. Edelman,  $\alpha$ -law memory: direct introduction and Eulerian numbers, fractional maps, and fractional difference maps, in: M. A. F. Sanjuan (eds.): Chaotic, Fractional, and Complex Dynamics: New Insights and Perspectives; Series: Understanding Complex Systems, 1-7, Springer, eBook, 2018.
4. M. Edelman, Universality in Systems with Power-Law Memory and Fractional Dynamics, in: M. Edelman, E. Macau, and M. A. F. Sanjuan (eds.): Chaotic, Fractional, and Complex Dynamics: New Insights and Perspectives; Series: Understanding Complex Systems, 147-171, Springer, eBook, 2018.
5. M. Edelman,  $\alpha$ -law memory: direct introduction and Eulerian numbers, fractional maps, and fractional difference maps, Conference on Chaos, Complexity and Transport 2015, Marseilles, France, 1-5 June 2015; X. Leoncini, C. Eloy, and G. Boedec (Editors), pp. 119-130 (World Scientific, Singapore, 2017). On-line [http://www.worldscientific.com/doi/abs/10.1142/9789813202740\\_fmatter](http://www.worldscientific.com/doi/abs/10.1142/9789813202740_fmatter)
6. M. Edelman,  $\alpha$ -law memory: direct introduction and Eulerian numbers, fractional maps with Power-law memory, in: M. A. F. Sanjuan (Eds.), pp. 79-120 (Springer, New York, 2014); arXiv:1306.6361.
7. M. Edelman,  $\alpha$ -law memory: direct introduction and Eulerian numbers, fractional maps, non-linear fractional differential Theory: Advances and Applications, A. Almeida, L. Castro, F.-O. Speck (Eds.) pp. 139-155 (Springer, Basel, 2013); arXiv:1211.4012.
8. M. Edelman, Problems in Nonlinear Science, Eds: E. Kaplan, J.E. Marsden, R.S. Katepalli, 421-443, (Springer, New York, 2003); arXiv:nlin/0112033.

**Refereed Journals:**

1.

16. G.M. Zaslavsky , P.N. Guzdar, M. Edelman  
of solar wind-
17.  
oscillators with long-range interaction: From synchronization to chaos  
Chaos, 17, 043124 (2007); arXiv:0707.3941.
18. G.M. Zaslavsk in Chaos,  
  
X. Leoncini, and G. Zaslavsky, 27-39, Marseille, France, 4-8 June 2007.
19. G.M. Zaslavsky, A.A. Stanislavsky, and M. Edelman, "Chaotic and  
pseudochaotic attractors of perturbed fractional oscillator", Chaos, 16, 013102  
(2006); arXiv:nlin/0508018.
20.  
Regular & Chaotic Dynamics 11, 329-336 (2006); arXiv:nlin/0511027.
21. A.S. Landsnman, S.A. Cohen, M. Edelman, G.M. Zaslavsky, "Resonance and  
chaotic trajectories in magnetic field reversed configuration", Commun.  
in Nonlin. Sci and Num. Sim. 10, 617, (2005).
22. G.M. Zaslavsky, B.A. Carreras, V.E. Lynch, L. Garcia, M. Edelman,
23. I.P. Smirnov, A.L. Virovlyansky, M. Edelman, and -  
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Mechaute, J.A. Tenreiro Machado, J.C. Trigeassou, J. Sabatier, 183-193,  
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30. S.V. Prants, M. Edelman, and G.M. Zaslavsky, *Phys. Rev. E* 66, 046222 (2002);  
 - arXiv:nlin/0210036. atom
31. G.M. Zaslavsky and M. Edelman, *Phys. Rev. E* 63, 016101 (2001);  
 filamentary structures, 11, 295 (2001).
32. G.M. Zaslavsky, M. Edelman, M., H. Weitzner, B. Carreras, G. McKee,  
 R. Bravenec, and R. Fonk, *Phys. Plasmas* 7, 3691 (2000).  
 -scale behavior of tokamak density
33. G.M. Zaslavsky and M. Edelman, *Phys. Rev. E* 63, 016101 (2001);  
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34. G.M. Zaslavsky, M. Edelman, and B.A. Niyazov, *Phys. Rev. E* 56, 159-181 (1997).  
 -Similarity,  
 Renormalization, and Phase Space Nonuniformity of Hamiltonian Chaotic
35. G.M. Zaslavsky and M. Edelman, *Phys. Rev. E* 56, 5310-5320 (1997).
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