

**ELENCO GENERALE PUBBLICAZIONI
FLAVIO SENO**

1. F. Seno, A.L. Stella
 θ point of a linear polymer in 2 dimensions: a renormalization group analysis of Monte Carlo enumerations
J. Physique, Vol.49, pp.739-748 (1988), Francia
2. F. Seno, A.L. Stella, C. Vanderzande
Universality Class of the $d=2$ θ Point of Linear Polymers
Phys. Rev. Lett., Vol.61, pp.1520 (1988), USA
3. F. Seno, A.L. Stella
Surface Exponents for a Linear Polymer at the $d=2$ θ Point
Europhys. Lett., Vol. 7, pp.605-610 (1988), USA
4. A. Maritan, F. Seno, A.L. Stella
Real Space Renormalization Group Approach to the Theta Point of a Linear Polymer in 2 and 3 Dimensions
Physica A, Vol. 156, pp.679-688 (1989), Olanda.
5. F. Seno, A.L. Stella
Conduction and connection properties of self-avoiding walks with bridge
Phys. Rev. A, Vol.40, pp.4704-4708 (1989), USA
6. R. Dekeyser, F. Igloi, F. Mallezie, F. Seno
Analysis of series with stochastic coefficients
Phys. Rev. A, Vol.42, pp.1923-1930 (1990), USA.
7. F. Seno, A.L. Stella, C. Vanderzande
Self avoiding walks in the presence of strongly correlated, annealed vacancies
Phys. Rev. Lett., Vol.65, pp.2897-2900 (1990), USA
8. S.L.A. de Queiroz, F. Seno, A.L. Stella
Polymers on Fractals and at the θ -Point Results of Flory Approximation
J. Physique, Vol. II, pp.339-349 (1991), Francia
9. A. Maritan, F. Seno, A.L. Stella
Gauge model with Ising vacancies multicritical behaviour for self-avoiding surfaces
Phys. Rev. B, Vol.44, pp. R2834-2837 (1991), USA
10. C. Vanderzande, A.L. Stella, F. Seno
Percolation, the Special θ , and the $\theta - \theta'$ Universality Puzzle
Phys. Rev. Lett Vol. 67, pp.2757-2760 (1991), USA

11. E.Orlandini, F.Seno, A.L.Stella, M.C.Tesi
Collapse from linear to branched polymer behaviour
Phys. Rev. Lett., Vol.68, pp 488-491 (1992), USA
12. M.Di Stasio, F.Seno, A.L.Stella
Vescicles on hierarchical lattice: an exact renormalization group approach
J. Phys. Vol. A25, 3891-3900 (1992), Gran Bretagna.
13. D.P. Foster, F. Seno
Adsorption of two-dimensional vesicles
J. Phys. A, Vol.26, pp.1299-1311 (1993), Gran Bretagna
14. F. Seno, D.A. Rabson, J.M. Yeomans
Low-Temperature Behaviour of the 6-state clock model with competing interactions
J. Phys. A, Vol.26, pp.4887-4905 (1993), Gran Bretagna
15. A.L. Stella, F. Seno, C. Vanderzande
Boundary critical behaviour of $d=2$ self avoiding walks on correlated and uncorrelated vacancies
J. Stat. Phys., Vol.73, pp.21-46 (1993), Belgio
16. F. Seno, J.M. Yeomans, R. Harbord and D.Y.K. Ko
Ground state of a model with competing interactions and spin anisotropy
Phys. Rev. B, Vol.49, pp.6412-6415 (1994), USA
17. F. Seno, J.M. Yeomans, R. Harbord and D.Y.K. Ko
Crossover between the discrete and the continuous spin limits in the ground state of a model with competing interactions and spin anisotropy
Proceedings of the School "Advanced Topics in Statistical Mechanics", Turk. Jour. of Physics Vol. 18, pp.361-366 (1994), Turchia
18. F. Seno, C. Vanderzande
Non-Universality in the Collapse of two-dimensional branched polymers
J. Phys. A, Vol.27, pp 5813-5830 (1994), Gran Bretagna
19. D.Y.K. Ko, F. Seno
Simulations of deposition growth models in various dimensions The possible importance of overhangs
Phys. Rev. E, Vol.50, pp.R1741-1744 (1994), USA
20. F. Seno, J.M. Yeomans
Spin softening in models with competing interactions: a new high anisotropy expansion to all orders
Phys. Rev. B, Vol.50, pp.10385-10388 (1994), USA
21. D.Y.K. Ko and F. Seno
Deposition growth modes from numerical simulations
Phys. Rev. B, Vol.50, pp.17583-17586 (1994), USA

22. C. Micheletti, F. Seno, J.M. Yeomans
Upsilon point in a spin model
Phys. Rev. B, Vol.52, pp. 4353-4359 (1995), USA
23. F. Seno, J.M. Yeomans
Modulated structures stabilized by spin softening: an expansion in inverse spin anisotropy
Phys. Rev. B, Vol. 52, pp.9550-9563 (1995), USA
24. P. De Los Rios, G. Caldarelli, A. Maritan, F. Seno
Optimal path and directed percolation
Phys. Rev. E, Vol.53, pp.R2029-2032 (1996), USA
25. M. Henkel, F. Seno
Phase diagram of branched polymer collapse
Phys. Rev. E, Vol.53, pp. 3662-3672 (1996), USA
26. F.Seno, M. Vendruscolo, A. Maritan, J.R. Banavar
An optimal protein design procedure
Phys. Rev. Lett., Vol. 77, pp.1901-1904 (1996), USA
27. F.Seno, A.L. Stella, C. Vanderzande
Optimal self avoiding paths in dilute random medium
Phys. Rev. E, Vol.55, pp.3859-3864 (1997), USA
28. A. Trovato and F. Seno
Universality for interacting oriented self--avoiding walk: a transfer matrix calculation
Phys. Rev. E, Vol.56, pp.131-143 (1997), USA
29. P. De Los Rios, A. Maritan and F. Seno
Polymers with a bimodal distribution and directed percolation
J. Phys. A, Vol. 30, pp.L617-621 (1997), UK
30. F. Seno, A. Maritan and J.R. Banavar
Interactions potentials for Protein Folding
Proteins: Structure, Function, and Genetics, Vol.30, pp.244-248 (1998), USA
31. C. Micheletti, F. Seno, A. Maritan and J.R. Banavar
Protein Design in a Lattice Model of Hydrophobic and Polar Amino Acids
Phys. Rev. Lett., Vol.80, pp.2237-2240 (1998), USA
32. J.R. Banavar, M. Cieplak, A. Maritan, G. Nadig, F. Seno and S. Vishveshwara
Structure-Based Design of Model Protein
Proteins: Structure, Function, and Genetics, Vol.31, pp.10-20 (1998), USA
33. C. Micheletti, F. Seno, A. Maritan and J.R. Banavar
Design of proteins with hydrophobic and polar aminoacids
Proteins: Structure, Function, and Genetics, Vol.32, (1998), USA

34. C. Micheletti, J.R. Banavar, A. Maritan and F. Seno
Steric constraints in model proteins
Phys. Rev. Lett., Vol.80, pp.5683-5686 (1998), USA
35. F. Seno, C. Micheletti, A. Maritan and J.R. Banavar
Variational approach to protein design and extraction of interaction potentials
Phys. Rev. Lett., Vol.81, pp.2172-2175 (1998), USA
36. C. Micheletti, J.R. Banavar, A. Maritan and F. Seno
Protein structures and optimal folding from a geometrical variational principle
Phys. Rev. Lett., Vol.82, pp. 3372-3375 (1999), USA
37. J. van Mourik, C. Clementi, A. Maritan, F. Seno, J.R. Banavar
Determination of interaction potentials of amino-acids from native protein structure. Tests on simple lattice models
J. Chem. Phys., Vol.110, pp.10123-10133 (1999), USA
38. C. Micheletti, F. Seno, A. Maritan and J.R. Banavar
Strategies for protein folding and design
Annals of Combinatorics, Vol.3, pp.439-458 (1999), Australia
39. R. Bonaccini and F. Seno
A simple model to study the insertion of a protein in a membrane
Phys. Rev. E, Vol.60, pp.7290-7298 (1999), USA
40. E. Orlandini, F. Seno and A.L. Stella
Adsorption like collapse of diblock copolymers
Phys. Rev. Lett., Vol.84, pp.294-297 (2000), USA
41. C. Micheletti, F. Seno, A. Maritan
Recurrent oligomers in proteins - an optimal scheme reconciling accurate and concise backbone representations in automated folding and design studies
PROTEINS: Structure, Function, and Genetics, Vol.40, pp. 662-674 (2000), USA
42. E. Orlandini, F. Seno, J.R. Banavar, A. Laio and A. Maritan
Deciphering the folding kinetics of transmembrane helical proteins
Proceedings of the National Academy of Science (USA), Vol.97, pp.14229-14234 (2000), USA
43. C. Micheletti, F. Seno, A. Maritan and J.R. Banavar
Learning effective amino acid interactions through iterative stochastic techniques
PROTEINS: Structure, Function, and Genetics, Vol.42, pp.422-431 (2001), USA
44. C. Micheletti, F. Seno, A. Maritan and J.R. Banavar
An optimal procedure to extract interaction potentials for protein folding
Journal of Computational Materials Science, Vol. 20, pp.305-310 (2001), USA
45. A. Rossi, C. Micheletti, F. Seno and A. Maritan
Self-consistent knowledge-based approach to protein design

Biophysical Journal, Vol.80, pp.480-490 (2001), UK

46. S.M. Bhattacharjee and F. Seno
A measure of data collapse for scaling
J. Phys. A, Vol. 33, pp.6375-6380 (2001), UK
47. D.P. Foster and F. Seno
Two dimensional self-avoiding walk with hydrogen-like bonding: Phase diagram and critical behaviour
J. Phys. A, Vol. 34, pp.9939-9957 (2001), UK
48. D. Marenduzzo, S.M. Bhattacharjee, A. Maritan, E. Orlandini and F. Seno
Mechanical denaturation of DNA: existence of a low temperature denaturation
J. Phys. A, Vol. 34, pp.L751-L758 (2001), UK
49. E. Orlandini, S.M. Bhattacharjee, D. Marenduzzo, A. Maritan and F. Seno
Dynamical scaling of the DNA unzipping transition
Phys. Rev. Lett., Vol.88, pp.028102-028106 (2002), USA
50. D. Marenduzzo, A. Maritan and F. Seno
Force-induced unfolding of a homopolymer on a fractal lattice: exact results versus mean-field predictions
J. Phys. A, Vol.35, pp.L233-L240 (2002), UK
51. J.R. Banavar, A. Maritan and F. Seno
Anisotropic Effective Interactions in a Coarse-Grained Tube Picture of Proteins
Proteins: Structure, Function and Genetics, Vol.49, pp.246-254 (2002), USA
52. H.T. Dobbs, E. Orlandini, R. Bonaccini and F. Seno
Optimal Potentials for Predicting Inter-Helical Packing in Transmembrane Proteins
Proteins: Structure, Function and Genetics, Vol.49, pp.342-349 (2002), USA
53. D. Marenduzzo, A. Maritan, A. Rosa and F. Seno
Stretching of a polymer below the theta point
Phys. Rev. Lett., Vol. 90, art no -088301 (2003), USA
54. S.M. Bhattacharjee and F. Seno
Helicase on DNA: a phase coexistence based mechanism
J. Phys. A, Vol.36, pp. L181-L187 (2003), USA
55. A. Rosa, D. Marenduzzo, A. Maritan and F. Seno
Mechanical unfolding of directed polymers in a poor solvent: Critical exponents
Phys. Rev. E, Vol. 67, art. no. 041802 (2003), USA
56. T.X. Hoang, F. Seno, J.R. Banavar, M. Cieplak and A. Maritan
Assembly of protein tertiary structures from secondary structures using optimized potentials
Proteins: Structure, Function and Genetics, Vol.52, pp.155-165 (2003), USA

57. H.T. Dobbs, L. Peruzzo, F. Seno, R. Spiess and D.J. Prior
Unraveling the Schneeberg garnet puzzle: a numerical model of multiple nucleation and coalescence
Contributions to Mineralogy and Petrology, Vol. 146, pp. 1-9 (2003), Germany
58. C. Micheletti, V. De Filippis, A. Maritan and F. Seno
Elucidation of the disulfide-folding pathway of hirudin by a topology based approach
Proteins: Structure, Function and Genetics, Vol.53, pp.720-730 (2003), USA
59. A. Trovato and F. Seno
A new perspective on analysis of helix-helix packin preferences in globular proteins
Proteins: Structure, Function and Genetics, Vol.55, pp.1014-1022 (2004), USA
60. T.X. Hoang, A. Trovato, F. Seno, J.R. Banavar and A. Maritan
Geometry and simmetry presculpt the free-energy landscape of proteins
Proceedings of the National Academy of Science (USA), Vol. 101, pp. 7960-7964 (2004), USA
61. D. Marenduzzo, A. Maritan, A. Rosa and F. Seno
Stepwise unfolding of collapsed polymers
Eur. Phys. J. E **15**, pp. 83-93 (2004), Germany
62. J.R. Banavar, T.X. Hoang, A. Maritan, F. Seno and A. Trovato
Unified perspective on proteins: A physics approach
Physical Review **E70**, art. N. 041905 (2004), USA
63. Y. Kapri, S.M. Bhattacharjee and F. Seno
Complete phase diagram diagram of DNA unzipping: Eye,Y fork, and triple point code
Phys. Rev. Lett., **93**, art. no248102, (2004), USA
64. T.X. Hoang, A. Trovato, F. Seno, J.R. Banavar and A. Maritan
Geometrical model for the native state folds of proteins
Biophysical Chemistry **115**, pp. 289-294 (2005), Holland
65. A. Trovato, T.X. Hoang, J.R. Banavar, A. Maritan and F. Seno
What determines the structure s of native folds of proteins?
J. Phys. C **17**, pp. S1515-S1522 (2005), UK
66. D. Marenduzzo, T.X. Hoang, F. Seno, M. Vendruscolo and A. Maritan
On the form of growing strings
Phys. Rev. Lett **95**, Art. no. 098103 (2005), USA
67. J.R. Banavar, M. Cieplak, A. Flammini, T.X. Hoang, R.D. Kamien, T. Lezon, D. Marenduzzo, A. Maritan, F. Seno, Y. Snir and A. Trovato
Geometry of proteins: Hydrogen bonding, sterics and marginally compact tubes
Phys. Rev. **E73** , Art. No031921 (2006), USA
68. T.X. Hoang, A. Trovato, F. Seno, J.R. Banavar and A. Maritan
Marginal compactness of protein native structures

- Phys. **C18**, S297-S306 (2006), UK
69. T.X. Hoang, L. Marsella, A. Trovato, F. Seno, J.R. Banavar and A. Maritan
Common attributes of Native State Structures of Proteins, Disordered Proteins and Amyloid
Proceeding of the National Academy of Science USA **103**, 6883-6888 (2006), USA
 70. A. Trovato, F. Chiti, A. Maritan and F. Seno
Insight into the structure of Amyloid fibrils from the Analysis of Globular Proteins
Plos Computational Biology **12**, 1608-1618 (2006), USA
 71. A. Bhattacharyay, A. Trovato and F. Seno
Simple solvation potential for coarse-grained models of proteins
Proteins: Function Structure and Bioinformatics **67**, 285-292 (2007) , USA
 72. A. Trovato, A. Maritan and F. Seno
Aggregation of natively folded proteins: a theoretical approach
Journal of Physics Condensed matter **19**, Art. N. 285221 (2007), UK
 73. F. Seno and A. Trovato
Minireview: The compact phase in polymers and proteins
Physica A **384**, 122-127 (2007), Holland
 74. A. Trovato, F. Seno and S.C.E. Tosatto
The PASTA server for protein aggregation prediction
Protein Engineering Design and Selection **20**, 521-523 (2007), UK
 75. F. Seno, A. Trovato, J.R. Banavar and A. Maritan
Maximum entropy approach for deducing amino acid interactions in proteins
Phys. Rev. Lett. **100**, Art. No. 078102 (2008), USA
 76. T.X.Hoang, F. Seno, A. Trovato, J.R. Banavar and A. Maritan
Inference of the solvation Energy parameters of amino acids using maximum entropy
approach
J. Chem. Phys. **129**, Art. No. 035102 I (2008), USA
 77. D. Marenduzzo, A. Maritan, E. Orlandini, F.Seno and A. Trovato
Phase diagrams for DNA under stretching forces
J. Stat. Mech: Theory and Experiment. Art. L04001 (2009)
 78. L. Marsella, F. Scirocco, A. Trovato , F. Senian and S.C.E. Tosatto
REPETITA: detection and discrimination of the periodicity of protein solenoid repeats by
discrete Fourier Transform
Bioinformatics **25**, I289-I285 (2009) USA
 79. S. Alberghini, E. Pollone, V. Corich, M. Carlot, F. Seno, A. Trovato and A. Squartini
Consequences of relative cellular positioning on quorum sensing and bacterial cell-to-cell
communication
FEMS Microbiology Letters **292**, 149-161 (2009) USA

80. L. Cendron Trovato, F. Seno, C. Folli, B. Alfieri, G. Canotti and R. Berni
Amyloidogenic Potential of Transthyretin Variants INSIGHTS FROM STRUCTURAL AND COMPUTATIONAL ANALYSES
Journal of Biological Chemistry, **284**, 25832-25841 (2009), USA
81. D. Marenduzzo, E. Orlandini, F. Seno and A. Trovato
Different pulling modes in DNA overstretching: a theoretical analysis
Phys. Rev. **E81**, Art. N. 051926 (2010), USA
82. J. Maji, S.M. Bhattacharjee, F. Seno and A. Trovato
When a DNA triple helix melts: an analogue of the Efimov state
New Journal of Physics **12**, Art. No. 083057 (2010)
83. P. Cossio, A. Trovato, F. Pietrucci, A. Maritan, F. Seno and A. Laio
Exploring the universe of protein folds: beyond the protein data bank
Plos Computational Biology **11** , e1000957 (2010)
84. M. Baiesi, F. Seno and A. Trovato
Fibril elongation mechanisms of HET-s prion-forming domain: Topological evidence for growth polarity
Proteins: Function Structure and Bioinformatics **79**, 3067 (2011)
85. P. Cossio, D. Granata, A. Laio, F. Seno, A. Trovato
A simple and efficient statistical potential for scoring ensembles of proteins structure
Scientific Reports **2**, Art. No. 351 (2012)
- 86 J.R. Banavar, T.X. Hoang, F. Seno, A. Trovato and A. Maritan
Protein sequence and structure: is one more fundamental than the other?
J. Stat. Physics **148**, 635 (2012)
87. T.X. Hoang, A. Trovato, F. Seno, J.R. Banavar
Sequence repeats and protein structure
Physical Review E, **86** Art. No. 050901 (2012)
88. G. Kaniadakis, A. Scarfone and F. Seno
New trends in modern statistical physics
Cent. Eur. J. of Phys. **10**, 539 (2012)