# Teoria dell'Informazione

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## Diversi approcci all'informazione e definizioni

# Diversi approcci all'informazione e definizioni

1. Formulazione simbolica astratta (logico-matematica)
   (a) Definizione di Informazione = Forma (Ass. rimpiazzamento - OF)
   (b) Relazione di causalità formale $\searrow$ (OF)
   (c) Forma = Shape: Geometria-Topologia (Thom)
2. Formulazioni empirico-tecnologiche
   (a) Informazione nelle Telecomunicazioni (Shannon, Wiener)
   (b) Informazione Statistico-Termodinamica (Shannon)
   (c) Informazione Algoritmica (Kolmogorov)
   (d) Informazione nei Sistemi complessi
      i. Fisica dei Sistemi dinamici: $\left\langle \begin{array}{c} \text{strutturale (forma)} \\ \text{dinamica (organizzazione)} \end{array} \right\rangle$ attrattori
      ii. Biologia: $\left\langle \begin{array}{c} \text{comunicazione / apprendimento autom.} \\ \text{organizzazione / evoluzione} \end{array} \right\rangle$ finalizzate
      iii. Scienze cognitive: $\left\langle \begin{array}{c} \text{astrazione / riflessione} \\ \text{apprendimento consapevole} \end{array} \right\rangle$ significato

# Bibliografia per l'estate

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- AA.VV, BIOLOGICAL INFORMATION. NEW PERSPECTIVES, World Scientific, Singapore 2014

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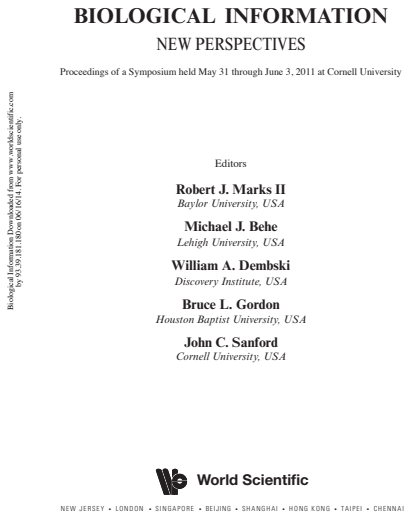

**BIOLOGICAL INFORMATION**

NEW PERSPECTIVES

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# Contents


*Title Page* v
*Acknowledgements* xi
*General Introduction* xiii

**Section One** **Information Theory & Biology: Introductory Comments** **1**
*Robert J. Marks II*

1.1.1 Biological Information — What is It? 11
*Werner Gitt, Robert Compton and Jorge Fernandez*

1.1.2 A General Theory of Information Cost Incurred by Successful Search 26
*William A. Dembski, Winston Ewert and Robert J. Marks II*

1.1.3 Pragmatic Information 64
*John W. Oller, Jr.*

1.2.1 Limits of Chaos and Progress in Evolutionary Dynamics 87
*William F. Basener*

1.2.2 Tierra: The Character of Adaptation 105
*Winston Ewert, William A. Dembski and Robert J. Marks II*

1.2.3 Multiple Overlapping Genetic Codes Profoundly Reduce the Probability of Beneficial Mutation 139
*George Montañez, Robert J. Marks II, Jorge Fernandez and John C. Sanford*

1.3.1 Entropy, Evolution and Open Systems 168
*Granville Sewell*

1.3.2 Information and Thermodynamics in Living Systems 179
*Andy C. McIntosh*

**Section Two** **Biological Information and Genetic Theory: Introductory Comments** **203**
*John C. Sanford*

2.1 Not Junk After All: Non-Protein-Coding DNA Carries Extensive Biological Information 210
*Jonathan Wells*


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2.2 Can Purifying Natural Selection Preserve Biological Information? 232
*Paul Gibson, John R. Baumgardner, Wesley H. Brewer and John C. Sanford*

2.3 Selection Threshold Severely Constrains Capture of Beneficial Mutations 264
*John C. Sanford, John R. Baumgardner and Wesley H. Brewer*

2.4 Using Numerical Simulation to Test the "Mutation-Count" Hypothesis 298
*Wesley H. Brewer, John R. Baumgardner and John C. Sanford*

2.5 Can Synergistic Epistasis Halt Mutation Accumulation? Results from Numerical Simulation 312
*John R. Baumgardner, Wesley H. Brewer and John C. Sanford*

2.6 Computational Evolution Experiments Reveal a Net Loss of Genetic Information Despite Selection 338
*Chase W. Nelson and John C. Sanford*

2.7 Information Loss: Potential for Accelerating Natural Genetic Attenuation of RNA Viruses 369
*Wesley H. Brewer, Franzine D. Smith and John C. Sanford*

2.8 DNA.EXE: A Sequence Comparison between the Human Genome and Computer Code 385
*Josiah Seaman*

2.9 Biocybernetics and Biosemiosis 402
*Donald Johnson*

**Section Three Theoretical Molecular Biology: Introductory Comments 415**
*Michael J. Behe*

3.1 An Ode to the Code: Evidence for Fine-Tuning in the Standard Codon Table 418
*Jed C. Macosko and Amanda M. Smelser*

3.2 A New Model of Intracellular Communication Based on Coherent, High-Frequency Vibrations in Biomolecules 435
*L. Dent*

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3.3 Getting There First: An Evolutionary Rate Advantage for Adaptive Loss-of-Function Mutations 450
*Michael J. Behe*

3.4 The Membrane Code: A Carrier of Essential Biological Information That Is Not Specified by DNA and Is Inherited Apart from It 474
*Jonathan Wells*

3.5 Explaining Metabolic Innovation: Neo-Darwinism *versus* Design 489
*Douglas D. Axe and Ann K. Gauger*

**Section Four Biological Information and Self-Organizational Complexity Theory: Introductory Comments 509**
*Bruce L. Gordon*

4.1 Evolution Beyond Entailing Law: The Roles of Embodied Information and Self Organization 513
*Stuart Kauffman*

4.2 Towards a General Biology: Emergence of Life and Information from the Perspective of Complex Systems Dynamics 533
*Bruce H. Weber*

*Index* 561

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