

## Biographies of the Authors

Haruo HOSOYA is emeritus Professor of Ochanomizu University where he had been Professor of Chemistry and Information Sciences for more than thirty years. During this time he developed his theory of the topological index,  $Z$ , a characteristic quantity for a graph. Since many physical and chemical properties of hydrocarbon molecules can be correlated with  $Z$ , researchers are now able analyze the mechanism underlying the properties and structure of molecules.

Slavik (Vlado) JABLAN got his Ph.D. degree (1984) from the University of Belgrade with the dissertation “Theory of Simple and Multiple Antisymmetry in  $E^2$ ”. He participated in the Advanced Scientific Program in Kishinev (Moldavia) 1985 and in USA and Canada (1990). He was a Fulbright scholar in 2003/4 and has Published three monographs and more than 50 papers on the theory of symmetry and ornament, antisymmetry, colored symmetry, ethnomathematics, and knot theory. His book *Symmetry, Ornament, and Modularity* is published by World Scientific. He is the Executive Secretary of ISIS Symmetry (International Society for the Interdisciplinary Studies of Symmetry) and the Editor of the electronic journal “Visual Mathematics” (<http://members.tripod.com/wismath> and <http://www.mi.sanu.ac.yu/vismath>).

Jay KAPRAFF is an Associate Professor of Mathematics at New Jersey Institute of Technology. He is the author of two books, *Connections: the Geometric Bridge between Art and Science* and *Beyond Measure: A Guided Tour through Nature, Myth, and Number*. He is also on the editorial board of FORMA and the International Journal of Biological Systems. He created a course on the Mathematics of Design and has written many papers on that topic. He has also created a Technology and Society Forum Series. He is an active chamber musician and Tai Chi practitioner.

Janusz KAPUSTA is an artist interested in Mathematics and Philosophy. His work ranges from small graphic forms, posters, magazine illustrations, graphic design, book illustrations, to set designs and painting. Since 1981 Kapusta has been living in New York, and his works have appeared in *The New York Times*, *The Wall Street Journal*, *The Washington Post* and others. In 1985 Janusz Kapusta discovered a new geometrical shape—an eleven faced polyhedron, which he called the K-dron ([www.K-dron.com](http://www.K-dron.com)). Kapusta is the author of three books and his artistic work can be found in the collections of many museums around the world. In February 2002, Kapusta took part in the staging of *Carmen* at the National Opera in Vilnius, Lithuania. In the same year, Kapusta, as one of 22 world artists, was invited to participate in the International Exhibition in Zagreb, Croatia in order to restore the Museum of Art in Vukovar that had been destroyed during the war. In May 2004, Kapusta won a Grand Prix in an international competition in Ankara commemorating the 80th Anniversary of the Turkish Republic. As a visiting professor, Kapusta collaborates with the newly established School of Visual Art and New Media in Warsaw.

Louis H. KAUFFMAN is Professor of Mathematics at the University of Illinois at Chicago, and he is the author of a number of books and research papers related to the theory

of knots. He is the founding editor of the *Journal of Knot Theory and Its Ramifications* and the editor of the *Book Series on Knots and Everything* (World Scientific). He is well-known for his discovery of state summation models for the Alexander and Jones polynomials, and for his discovery of the so-called Kauffman two-variable polynomial invariant of classical knots and links. He is less well-known for a constant and long-standing interest in the concept of form in mathematics and its relationship to the work of Ludwig Wittgenstein, Heinz von Foerster, G. Spencer-Brown and Charles Sanders Pierce. These interests are entwined with his research in recursive forms and fractal forms and his interests in knots, physics and the foundations of mathematics.

Radmila SANDANOVIC graduated in Theoretical Mathematics and Applications at The Mathematical Faculty, Belgrade (2005). During her studies she showed great interest in geometry, knot theory, topology and computer science. She has published several papers on tessellations of the hyperbolic plane and knot theory and participated in the development of *Mathematica* programs “Tess” and “LinKnot”.