

CONTENTS 2005–2007

Vol. 20 No. 1 pp. 1–46 2005

- 1–18 Systematic Study of Convex Pentagonal Tilings, I: Case of Convex Pentagons with Four Equal-length Edges *T. Sugimoto and T. Ogawa*
19–38 Analysis and Evaluation for Trajectories of Paramecia
 *S. Shinohara, T. Akiyama, S. Ishiwata and O. Hirayama*
39–46 Experiments for Stick-Slip Motions in One-dimensional Mass-Spring Systems
 *T. Higuchi, H. Kurihara and O. Hirayama*

Vol. 21 No. 1 pp. 1–112 2006

Special Issue: The Beauty of Formative Art

- 3–4 Preface: The Beauty of Formative Art *Y. Watanabe*
5–18 Hyplane—Polyhedral Models of Hyperbolic Plane *K. Ahara*
19–27 Materializing 3D Quasi-Fuchsian Fractals *Y. Araki*
29–35 Perfect Polyhedral Kaleidoscopes *C. Schwabe*
37–48 World of Scientific Puzzle Art Using Layer Manufacturing
 *Y. Watanabe, Y. Ikegami, K. Yamazawa and Y. Murakami*
49–65 Creating a Virtual Wooden Sculpture and a Woodblock Print with a Pressure Sensitive Pen and a
Tablet *S. Mizuno, D. Kobayashi, M. Okada, J. Toriwaki and S. Yamamoto*
67–80 Visualization of Forms in the Inside of the Human Body *J. Toriwaki*
81–92 Artistic Representation with Holography *S. Ishii*
93–97 Georythmie *P. Clahsen*
99–111 Sakamuni as Scientist—Sketches and Essays *R. Takaki*

Vol. 21 No. 2 pp. 113–176 2006

- 113–128 Properties of Tilings by Convex Pentagons *T. Sugimoto and T. Ogawa*
129–149 A Comparison of Rhythmic Dissimilarity Measures *G. Toussaint*
151–158 Characterization of Attractors in Gumowski-Mira Map Using Fast Lyapunov Indicators
 *L. M. Saha, M. K. Das and M. Budhraja*
159–167 Applications of Double-Wayland Algorithm to Detect Anomalous Signals
 *H. Takada, T. Morimoto, H. Tsunashima, T. Yamazaki, H. Hoshina and M. Miyao*
169–173 Counting the Patterns on Some Symmetric Polyhedrons—Rotations in a Question of Japan
Mathematics Contest *T. Ohsawa*

175 Errata: Hyplane-Polyhedral Models of Hyperbolic Plane *K. Ahara*

Vol. 21 No. 3 pp. 177–274 2006

- 177–196 How Many Facets on Average can a Tile Have in a Tiling? *N. Dolbilin and M. Tanemura*
197–225 Packing and Minkowski Covering of Congruent Spherical Caps on a Sphere for $N = 2, \dots, 9$
 *T. Sugimoto and M. Tanemura*
227–242 Virtual Reality Studies of Concrete *P. Stroeve, L. J. Sluys, Z. Guo and M. Stroeve*
243–258 Shape Analysis of Petroglyphs in Central Asia
 *R. Takaki, J. Toriwaki, S. Mizuno, R. Izuhara, M. Khudjanazarov and M. Reutova*
259–273 Statistical Prosody: Rhyming Pattern Selection in Japanese Short Poetry *K. Hayata*

Vol. 22 No. 1 pp. 1–140 2007

Commemorative Issue of the ISKAF06 Conference: The Beauty, Dynamics and Design of String Patterns in Folk Arts

- 1–3 Preface: The Beauty, Dynamics, and Design of String-Patterns in Folk Arts *S. Nagata*
5–13 Knots, Links, and Self-Avoiding Curves *S. Jablan and R. Sazdanovic*
15–30 Solving Infinite Kolam in Knot Theory *Y. Ishimoto*

31–46	Fundamental Study on Design System of Kolam Pattern	<i>K. Yanagisawa and S. Nagata</i>
47–54	P Systems for Array Generation and Application to Kolam Patterns	<i>K. G. Subramanian, R. Saravanan and T. Robinson</i>
55–64	Extended Pasting Scheme for Kolam Pattern Generation	<i>T. Robinson</i>
65–74	Hierarchical Modular Systems with Elements of Folk Art	<i>N. Kishimoto and M. C. Natori</i>
75–91	Shapes of Knot Patterns	<i>K. Morita</i>
93–102	A Space-filling Three-dimensional Serial Polyaxis	<i>R. Oka and M. Kawamoto</i>
103–111	Analysis of Impression from Geometric Patterns in Textiles of Cultural Properties in Japan	<i>K. Goto, A. Goto, A. Nakai, M. Sato, K. Morimoto and H. Hamada</i>
113–118	PsyKolo3D—Interactive Computer Graphical Content of “Kolam” Design Blocks	<i>Y. Kawai, K. Takahashi and S. Nagata</i>
119–126	Digitalization and Analysis of Traditional Cycle Patterns in the World, and Their Contemporary Applications	<i>S. Nagata</i>
127–128	Drawing Down Desires: Women, Ritual and Art in Tamil Nadu	<i>V. Nagarajan</i>
129–131	African <i>Sona</i> , Mirror Curves and Lunda-Designs	<i>P. Gerdes</i>
133–139	Analysis of Spiral Curves in Traditional Cultures	<i>R. Takaki and N. Ueda</i>

Vol. 22 No. 2 pp. 141–206 2007

141–155	Large Deviations, Gibbs Measures, and Topologically Conjugate Transforms in Network Dynamics	<i>S. Miyazaki</i>
157–175	Packing and Minkowski Covering of Congruent Spherical Caps on a Sphere, II: Cases of $N = 10, 11$, and 12	<i>T. Sugimoto and M. Tanemura</i>
177–189	Atommetrics: Another View of Atomic Structure Based on Electron Orbital Geometry Part 2	<i>E. Suzuki Hoerd</i>
191–197	Betti Numbers of Defects Field	<i>K. Yamasaki</i>
199–206	Evaluation of High Quality LCDs Displaying Moving Pictures, on the Basis of the Form Obtained from Statokinesigrams . . .	<i>K. Fujikake, M. Miyao R. Honda, M. Omori, Y. Matsuura and H. Takada</i>

Vol. 22 No. 3 pp. 207–260 2007

207–215	Pixel-Filling by Using Fibonacci Spiral	<i>R. Negishi and K. Sekiguchi</i>
217–229	Evaluation of High-quality LCDs Displaying Moving Pictures by Use of the Form Obtained from Statokinesigrams and the Dynamics	<i>K. Fujikake, H. Takada, M. Omori and M. Miyao</i>
231–245	A Design Support System for Kaga-Yuzen Kimono Pattern by Means of L-System	<i>Y. Kamada and K. Miyata</i>
247–260	Spirally Mapped Mandalas Twilled with Chinese Poems	<i>K. Hayata</i>