

## List of Papers

### I. Differential Geometry

#### Books

- [PPS] Pitis Gh., Purcaru M., Sabau V.S., *Differential Geometry, Text book for students*, Transilvania University Brasov, Faculty of Sciences (1994), (123 p. in Romanian).
- [MHSS] Miron R., Hrimiuc D., Shimada H., Sabau V.S., *The Geometry of Hamilton and Lagrange spaces*, Kluwer Acad. Publishers, FTP. **118** (May 2001), 356.
- [SS] Shimada H., Sabau V.S. ( 訳 ), *微分幾何学講義:リーマン・フィンスラー幾何学入門* S. S. Chern, H. W. Chen, K. S. Lam( 著 ), 倍風館 (2005).

#### Referred papers

### I. Differential Geometry

- [SaS1] Sabau V. S., Shimada H., *The electromagnetic field in the Second Order Relativistic Geometrical Optics*, The Memoirs of the Romanian Academy **Serie IV, tome XXI** (1998), 37–52.
- [Ssa1] Shimada H., Sabau V.S., *Higher Order Miron-Tavakol metric*, Revue Roumaine des Mathematiques Pures et Appliquées **XLII (9-10)** (1998), 813–822.
- [MS1] Miron R., Sabau V.S., *Higher Order Finsler spaces and Kawaguchi spaces of order  $k \geq 1$* , Tensor N.S. **59** (1999).
- [SaS2] Sabau V.S., Shimada H., *On the Prolongations of Riemannian and Finslerian structures to  $Osc^k M$* , Tensor N.S. **59** (1999), 44–53.
- [MS2] Miron R., Sabau V.S., *Finsler Spaces of Order  $k \geq 1$* , Alg., Gr. and Geom., Hadronic Press **16, No. 1, March** (1999), 83–90.
- [ASS] Anastasiei M, Shimada H., Sabau V.S., *On the nonlinear connection of a Second Order Finsler Space*, Alg., Gr. and Geom., Hadronic Press **16, No. 1, March** (1999), 1–10.
- [S1] Sabau V.S., *Higher Order Ecological Metric*, Finslerian Geometries, Kluwer Acad. Publ., Ed. P. L. Antonelli **109** (2000), 245–261.
- [SaS3] Sabau V.S., Shimada H., *Finsler Geometry*, Finslerian Geometries, Kluwer Acad. Publ., Ed. P. L. Antonelli **109** (2000), 15–24.
- [SaS4] Sabau V.S., Shimada H., *Classes of Finsler spaces with  $(\alpha, \beta)$ -metrics*, Rep. Math. Phys. **47, No. 1** (2001), 31–48.
- [MSS] Miron R., Shimada H., Sabau V.S., *Finsler spaces with  $(\mu, \beta)$ -metric*, Publicationes Mathematicae Debrecen **62 (3-4)** (2003), 547–560.
- [HSS] Hasegawa I., Sabau V.S., Shimada H., *Randers spaces of constant flag curvature induced by almost contact metric structures*, Hokkaido Mathematical Journal **33** (2004), 215–232.
- [S2] Sabau V.S., *Randers metrics on  $\mathbb{C}P^2$* , Periodica Mathematica Hungarica **48(1-2)** (2004), 25–31.
- [RSS1] Roman M., Sabau V.S., Shimada H., *On  $\beta$  change of the Antonelli-Shimada ecological metric*, Tensor N. S. **65** (2004), 65–73.
- [S3] Sabau V.S., *Some remarks of Jacobi stability*, Nonlinear Analysis, **63 (5-7)** (2005), e143–e153.
- [Ssa5] Shimada H., Sabau V.S., *Introduction to Matsumoto metric*, Nonlinear Analysis, **63 (5-7)** (2005), e165–e168.

### II. Life Science

- [B1] Antonelli P., Maculan, N. Portugal, R. Rutz, S.V. Sabau, *Transient-states analysis of a 2-species Dynamical Ecological model via KCC-theory*, Nonlinear Studies **Vol 8, No. 3** (2001), 283–296.
- [B2] Sabau V.S., Nemoto Y., Hashimoto S., Ihara S., *A cell simulation for circadian rhythm based on Michaelis-Menten model*, Journal of Biological Physics **2(3)** (2002), 465–469.

- [B3] Antonelli. P., R. Rutz, S.V. Sabau, *A Transient-states analysis of Tyson's model for the cell division cycle*, Open Systems and Information Dynamics **Vol 9, No.3** (2002), 223–238.
- [B4] Sabau V.S, *Systems biology and Deviation curvature tensor*, Nonlinear Analysis: Real World Applications **Vol 6** (2005), 563–587.
- [B5] Ionescu-Targoviste C., Ioacara S., Sabau V.S, Lichiardopol R., Guja C., Bojin A., Apetrei E., *Factor Analysis of the Risk Variables Clustering in the Insulin Resistance syndrome in Romanian Population*, to appear in Diabetes medicine (2005).
- [B6] Azumi K., Usami T., Fujie M., Sabau V.S, *Gene expression profiles during life cycle of Ciona intestinalis*, to appear (2005).

### Proceedings

- [Sas5] Sabau V.S., Shimada H., *Some Aspects on second Order Relativistic Geometrical Optics*, Proceedings of Hokkaido Tokai University, Science and Engineering **9** (1996), 33–45.
- [SaS6] Sabau V.S., Shimada H., *Some remarks on the Higher Order Osculator Bundle*, Proceedings of Hokkaido Tokai University **9** (1996), 47–58.
- [SaS7] Sabau V. S., Shimada H., *On the canonical nonlinear connection of the Higher Order Osculator Bundle*, Proceedings of the 31-th Symposium on Finsler Geometry, Chiba (1996), 36–40.
- [MSS1] Miron R., Sabau V.S., Shimada H., *Abstract from the Higher Order Finsler spaces and examples*, Proceedings of Hokkaido Tokai University, Science and Engineering **10** (1997), 1–12.
- [S2] Sabau V.S., *Abstract on the Variational Problem in second order relativistic optics*, Proceedings of the 32-th Symposium on Finsler Geometry, Ise (1997), 31–34.
- [MSS2] Miron R., Sabau V.S., Shimada H., *Abstract from the higher order Finsler spaces*, Proceedings of the 32-th Symposium on Finsler Geometry, Ise (1997), 35–38.
- [S3] Sabau V.S., *On a transformation of Rund connection*, Proceedings of the 33-th Symposium on Finsler Geometry, Lake Yamanaka (1998), 27–30.
- [Sab] Sabau V.S., *Higher order generalized Finsler spaces and examples*, Tensor N. S., Proceedings of the 5-th International conference of Tensor Society, Calcutta, India **61 (2)** (December 1998), 131–139.
- [S4] Sabau V.S., *Some remarks on the Gauss-Bonnet theorem for Finsler spaces*, Proceedings of the 34-th Symposium on Finsler Geometry, Hakodate (1999), 14–17.
- [MSS3] Miron R., Shimada H., Sabau V.S., *Abstract on the new lifts of generalized Lagrange metrics*, Proceedings of the 34-th Symposium on Finsler Geometry, Hakodate (1999), 18–22.
- [SaS8] Sabau V.S., Shimada H., *Some remarks on Finsler spaces with  $(\alpha, \beta)$  metrics*, Proceedings of the 34-th Symposium on Finsler Geometry, Hakodate (1999), 72–75.
- [AnSS] Andronic B., Sabau V.S., Shimada H., *New Lifts of Sasaki type of the Generalized Lagrange Metrics*, Proceedings of Hokkaido Tokai University, Science and Engineering **12** (1999), 9–14.
- [S5] Sabau V.S., *Projectively flat Finsler metrics corresponding to quadrics in  $CP^n$* , Proceedings of the 35-th Symposium on Finsler Geometry, Kagoshima (2000), 11–14.
- [Ssa2] Shimada H., Sabau V.S., *On Finsler metrics of constant positive curvature*, Proceedings of the 35-th Symposium on Finsler Geometry, Kagoshima (2000), 48–52.
- [MSS4] Miron R., Shimada H., Sabau V.S., *Finsler spaces with  $(\mu, \beta)$ -metrics*, Proceedings of the 36-th Symposium on Finsler Geometry, Hamana (2001), 18–22.
- [HSS2] Hasegawa I., Sabau V.S., Shimada H., *Some remarks on Randers spaces of constant flag curvature*, Proceedings of the 37-th Symposium on Finsler Geometry, Tsukuba (2002), 22–26.
- [S7] Sabau V.S., *On the geometry of linkage disequilibrium*, Proceedings of the 37-th Symposium on Finsler Geometry, Tsukuba (2002), 22–26.
- [S8] Sabau V.S., *Einstein-Randers metrics on  $CP^2$* , Proceedings of the 38-th Symposium on Finsler Geometry, Otsu (2003), 41–45.
- [S9] Sabau V.S., *On Projectively flat Finsler spheres*, Finsler and Lagrange Geometries (Ed. M. Anastasiei and P.L. Antonelli), Kluwer Academic Publishers (2003), 181–192.

- [Ssa3] Shimada H., Sabau V.S., *On the corrected form on an old result: Necessary and Sufficient conditions of a Randers space to be of constant curvature*, Finsler and Lagrange Geometries (Ed. M. Anastasiei and P.L. Antonelli), Kluwer Academic Publishers (2003), 193–196.
- [Ssa4] Shimada H., Sabau V.S., *Some remarks of Matsumoto metric*, Proceedings of the 39-th Symposium on Finsler Geometry, Kyoto (2004), 33–36.
- [RSS2] Roman M., Sabau V.S., Shimada H., *Some Perspectives in Finsler spaces with  $(\mu, \beta)$ -metric*, Lagrange and Hamilton Geometries and their applications, Radu Miron (Ed.), Handbooks. Treatises. Monographs **49** (2004), 195–202.
- [S10] Sabau V.S., *A survey of Matsumoto's slope metric*, Proceedings of the 40-th Symposium on Finsler Geometry, Sapporo (2005).

### Invited Lectures

1. *Second order Hamilton geometry*, August 1996, International Conference of Tensor Society, Tsukuba, Japan
2. *Legendre duality between Lagrange and Hamilton spaces of second order*, December 1997, International Conference on Differential Geometry and Topology, Cairo University, Cairo, Egypt
3. *Intrinsic properties of Finsler connections*, February 2000, International Workshop on Finsler Geometry, Pusan University, Pusan, Korea
4. *Models of the metabolic pathways*, May 2000, Reports on national Projects, NEDO, Tokyo, Japan
5. *Protein Production Stability*, May 2001, Triple International Genome Workshop, IMPA, Rio de Janeiro, Brasil
6. *On projectively flat Finsler spheres: some remarks on a theorem of R. L. Bryant's*, International Conference on Finsler and Lagrange Geometries, August 2001, Al. I. Cuza University, Iasi, Romania
7. *Biological models in Finsler geometry*, October 2001, The 35-th Symposium on Finsler Geometry, Lake Hamana, Japan
8. *Cell cycle and Berwald deviation tensor*, June 2002, Finsler Geometry, MSRI, Berkeley, USA
9. *Randers metrics on  $\mathbb{C}P^2$* , June 2003, International Conference on Finsler Geometry, Debrecen, Hungary
10. *Mutual information in the analysis of cancer tissues associated data*, January 2004, Information Geometry Symposium, Tokyo Metropolitan University, Japan
11. *A mathematical model of diabetes*, March 2004, The Genetics of Diabetes Mellitus, "N.C.Paulescu" Institute, Bucharest, Romania
12. *Some remarks on Jacobi stability*, June 2004, The 4-th World Congress of Nonlinear Analysts, Orlando, Florida, USA.