

Résumé

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Name: Garret E. Sobczyk Born: April 3, 1943, Massachusetts
High School Diploma: June 1961, Gainesville, Florida
B.S. Degree in Mathematics: June 1964, Western State College
(Minor in Chemistry) Gunnison, Colorado
Seismic Analyst and Computer Programmer: 1964-1966, United
Electro-Dynamics, Teledyn Inc., Alexandria, Virginia
Instructor of Mathematics/Ph.D. Student: 1966-1971, Arizona
State University (ASU)
M.S. Degree in Mathematics: July 1967, ASU
Developed Liberal Arts Course in Mathematics: 1968-1970
Ph.D. Degree in Mathematics: September 1971
Visiting Assistant Professor: 1971-1973, Dept. of Math, ASU
Research Fellow: 1973-1974, Polish Academy of Science, Warsaw
Research Grant to write book Geometric Calculus: 1975, ASU
Systems Analyst and Computer Programmer: 1976-1977, Medical
University of South Carolina at Charleston
Part-time Mathematics Instructor: 1976-1977, College of Charleston
University of Stoney Brook/University of Wroclaw Exchange Program:
1977-1979, Institute for Theoretical Physics, Wroclaw, Poland
Research Fellow: 1979-1982, Institute for Theoretical Physics,
Wroclaw, Poland
Summer Research Institute: University of Tasmania, Dept. of
Mathematics, Feb.-March 1981.

Publications

1. "Mappings of Surfaces in Euclidean Space Using Geometric Algebra," Dissertation, ASU, Tempe, Ariz. June 1971
2. "Geometric Structures", Polish Academy of Science, Warsaw 1974
3. Geometric Calculus (co-author: D. Hestenes), to be published
4. "Spacetime Algebra Approach to Curvature," J. Math Phys., Vol.24, Feb.1981
5. "Plebanski Classification of the Tensor of Matter," Acta Physica Polonica, No.8, Vol.B11 (1980)
6. "A Complex Gibbs-Heaviside Vector Algebra for Spacetime," Acta Physica Polonica, Vol. B12 No 5 (1981)407
7. "Conjugations and Hermitian Operators in Spacetime," Acta Physica Polonica, Vol B12 No 6 (1981)509
8. "Spacetime Vector Analysis," Physics Letters, 84A (1981)45
9. "Algebraic Classification of Important Tensors in Physics," Physics Letters, 84A (1981)49
10. "Clifford Analytical Techniques in Lie-Admissible Mechanics," Conf. on Non Potential Interactions, Orleans, France (1982)
11. "Geometry of Complex Quaternions," to be published in Linear and Multilinear Algebra
12. Writing Textbook: Spacetime Vector Analysis (in progress)

Short Biographical Sketch
(Written for book Geometric Calculus)

Dr. Sobczyk was introduced to Geometric Calculus by the senior author, when he was a graduate student in mathematics at Arizona State University (ASU) in 1966, and early on was struck by the great conceptual clarity that it is possible to attain when geometric ideas are expressed in this language. He has since devoted all his efforts to its development and acceptance by the Mathematics and Physics communities. In 1971 he completed his doctoral thesis, and the following year continued his close collaboration with the senior author while a visiting assistant professor at ASU. (This close personal collaboration was resumed in 1975, when he spent the summer at ASU, at which time the book was taking its final shape.) The employment crisis in academia, beginning in the early 1970's, led Dr. Sobczyk to seek opportunities to continue this work outside of the USA. This quest first brought him to Western Europe, and later, to Eastern Europe. In Poland he was a visiting research member of Polish Academy of Science (Mathematics Institute) during 1973-1974. He was later to return to Poland in 1977 to become a visiting member of the Institute for Theoretical Physics, Wroclaw, through an exchange program with SUNY at Stony Brook (1977-1979). At present, he is living in Poland with his Polish wife, and he maintains his fruitful contact with the Institute for Theoretical Physics, Wroclaw, as an associate member. His interests include multilinear algebra, differential geometry, and general relativity.