

Yakov Itin

Institute of Mathematics, The Hebrew University of Jerusalem, Givat Ram,
Jerusalem 91904 Israel +972-2-658-59-82

Jerusalem College of Engineering, Ramat Beit Hakerem, Jerusalem 91035
Israel +972-2-651-77-85

Personal

Born January 21, 1955, Gomel, USSR. Married+4

Citizenship: Israeli.

Address: Ha-haluzim, 18 Beit-Shemesh 99000 Israel

E-mail: *itin@math.huji.ac.il*, web-page *http://ma.huji.ac.il/itin*

Research Interests

Differential Geometry, Multilinear Algebra, PDE and Numerical Analysis.
General Relativity, Classical field theory. Metric-affine gravity (MAG), Ax-
iomatic Electrodynamics, Lorentz violation models, Algebraic problems in
theory of elasticity and in optics (birefringence).

Education

1998 Ph.D. in Mathematics

The Hebrew University, Jerusalem, Israel

Dissertation title: “Differential forms and their application to theory of phys-
ical fields. ” Advisor: Prof. Shmuel Kaniel

1990 M.Sc. in Mathematics, cum laude

Tver State University, Tver, USSR

Dissertation title: “Motion of a classical relativistic string.” Advisor: Prof.
A.B. Barbashov

Teaching Experience

Complex Analyses, Advanced Calculus, Numerical Analysis, Calculus for
Scientists, Linear Algebra for Physicists, ODE, PDE, Mathematical Founda-
tions of Relativity.

Further Activities:

Referee for the journals: Classical and Quantum Gravity, Journal of Mathe-
matical Physics, Annalen der Physik. Reviewer for AMS.

Computer programs: REDUCE, MAPLE, MAT-LAB, LaTeX, Microsoft
products.

Talks at Conferences

8th Marcel Grossmann Meeting on General Relativity, Gravitation and Relativistic Field Theories (MG 8) Jerusalem, Israel	June 1997
9th Marcel Grossmann Meeting on General Relativity, Gravitation and Relativistic Field Theories (MG 9), Rome, Italy	2-9 July 2000.
16th International Conference on General Relativity & Gravitation Durban, South Africa	15 - 21 July 2001
Journes Relativistes University College, Dublin, Ireland	6 - 8 September, 2001
Deutsche Physikalische Gesellschaft e. V. (DPG) Hannover, Germany	24 - 28 Marth, 2003
Workshop on Gravity in Two Dimensions Erwin Schrödinger Institute, Vienna	15. Sep. - 12. Oct. 2003

1. F.W. Hehl, Y. Itin, and Yu.N. Obukhov, *Recent developments in pre-metric electrodynamics*. In: Proceedings of the 3rd Summer School in Modern Mathematical Physics, August 2004, 11 Zlatibor, Serbia.
2. Y. Itin, *Weak field reduction in teleparallel coframe gravity. Vacuum case*. J.Math.Phys. **46**, 012501 (2005).
3. Y. Itin, *Carroll-Field-Jackiw electrodynamics in the pre-metric framework*. Phys. Rev. D **70**, 025012 (2004)
4. Y. Itin and F. W. Hehl, *Is the Lorentz signature of the metric of space-time electromagnetic in origin?* Annals Phys. **312**, 60 (2004)
5. Y. Itin and F. W. Hehl, *Maxwell's field coupled nonminimally to quadratic torsion and induced axion field*. Phys. Rev. D **68**, 127701 (2003)
6. Y. Itin, *Noether currents and charges for Maxwell-like Lagrangians*. J. Phys. A **36**, 8867 (2003)

7. F. W. Hehl and Y. Itin, *The Cauchy relations in linear elasticity theory*. J. of Elasticity **66**, 185, (2002).
8. Y. Itin, *Coframe energy-momentum current. Algebraic properties*. Gen. Rel. Grav. **34**, 1819 (2002)
9. Y. Itin, *Energy-momentum current for coframe gravity*. Class. Quant. Grav. **19**, 173 (2002)
10. Y. Itin, *Coframe teleparallel models of gravity. Exact solutions*. Int. J. Mod. Phys. D **10**, 547 (2001)
11. Y. Itin and S. Kaniel, *On a class of invariant coframe operators with application to gravity*. J. Math. Phys. **41**, 6318 (2000)
12. Y. Itin, *Quasi-linear equations in coframe gravity*. Gen. Rel. Grav. **31**, 1891 (1999)
13. Y. Itin, *Gravity on a parallelizable manifold: Exact solutions*. Gen. Rel. Grav. **31**, 187 (1999)
14. S. Kaniel and Y. Itin, *Gravity on parallelizable manifold*. Nuovo Cim. **113B**, 393 (1998)