

Thierry Dana-Picard

CURRICULUM VITAE

April 13, 2005

1 Personal.

- Born: May, 6, 1954 in Nice (France).
- Marital Status: married +4.
- Address: Sayeret Golani St., 12/2, Jerusalem 97531.

2 Academic background.

2.1 Université de Nice, France.

- 1971-1976 B.Sc, M.Sc. and D.E.A., University of Nice (France).
Major Subject: Analytic Geometry. Advisors:
Prof. A. Van de Ven and Prof. A. Hirschowitz.
- 1976 C.A.P.E.S. (Certificat d'Aptitude au Professorat
dans l'Enseignement Secondaire = Teaching Licence)
- 1976-81 Doctorat de Troisième Cycle.
Thesis: Sur quelques Problèmes de Déformation
en Géométrie Algébrique. Advisor: Prof. A. Hirschowitz.

2.2 Bar-Ilan University, Israel.

- 1984-90 Ph.D. Studies. Thesis: Classifying Generic Algebras.
Advisor: Prof. M. Schaps. Degree granted: 1991.

3 Academic Positions.

- 2000-Present Senior Lecturer at Jerusalem College of Technology.
- 1996-2000 Senior Lecturer (Parallel Cursus) at JCT.
- 1994-Present Lecturer at Orot Israel College for Teacher Training (Elkana, Israel)
Department Coordinator from 1996.
- 1993-96 Lecturer at Jerusalem College of Technology.
- 1992-95 Lecturer at Judea and Samaria College (Ariel, Israel).
- 1989-Present Lecturer at Jerusalem College.
- 1984-89 Assistant (Madrikh), Department of Math. and Comp. Sc. ,
Bar-Ilan University.

4 Other Academic Activities.

4.1 General activities

- From 09/2004 Mathematical Advisor, Dept of Science Education, Weizman Institute, R
- 2004 Referee for CERME 4
- 2004 Beta-tester for Derive Software (Texas Instruments).
- 2001-2002 Academic Head, Pre-academic program, JCT.
- 2000-2002 Member of the team “Technology Assisted Teaching in Mathematics”,
Intel, Kiryat Gat and Mofet Institute, Tel-Aviv.
- 2000- 2001 Member of the research team on Computer Assisted
Teaching in Higher Education, Mofet Institute, Tel-Aviv.
- 1999-Present Committee for Teaching Quality, JCT.
- 1998-2000 Member of the research team on “Undergraduate Research”, Mofet
Institute, Tel-Aviv.
- 1998 Referee for CERME-1 (The 1st Conference of the European
Society for Research in Mathematics Education).
- 1996-Present Adviser in the Excellence program at JCT.
- 1996-Present Member of the Editorial Board of the “Aleph-0” Journal, Jerusalem.
- 1995-96 Member of the Academic Program Committee, Second
International Conference on Teacher Education, Netanya, Israel
(Chair of the subcommittee “Computer Communication in Teacher
Training”).
- 1989-94 Teacher in the joint project “Mathematics for gifted youth”, Bar-Ilan
University and the Ministry of Education.

4.2 Journals

- 2000-Present Referee for International Journal of Mathematical Education in Science and Technology.
1995-Present Reviewer for Zentralblatt für Mathematik.
1994-2002 Reviewer for Mathematical Reviews.

5 Languages Spoken and Read

Hebrew, French, English, German.

6 Fellowships and Grants.

- 1984-85 Wolff Foundation.
1985-88 Jewish Agency.
1989-92 Post-doctoral Fellowship, Beer-Sheva University of the Negev.
1998-99 Problem Solving in Analysis, Research Grant, Orot Israel College.
1999 Merit Award, British Friends of JCT.
2004-2005 R & D grant: *Conceptual insight into the solutions of Ordinary Differential equations, using a Computer Algebra System*, JCT.

7 Publications.

7.1 Refereed Publications

1. (with M. Schaps) *Classifying Generic Algebras*, Rocky Mountain J. of Math. 22 (1), (1992), 125-156.
2. *8-dimensional Generic Algebras with mixed basis-graph*, Pacific J. of Math. 164 (2) (1994), 229-261.
3. (with M. Schaps) *Classifying Generic Algebras: the Local Case*, Houston J. of Math. 22 (4) (1996), 749-773.
4. (with A. Haenel) *Triangles, polygons and beams of light*, Internat. J. Math. Ed. Sci. Tech. 29 (1998), no. 6, 922-929.
5. (with D. Cohen) *Linearization of Trigonometric Polynomials*, Missouri J. of Math. Sc. 11 (2) (1999), 87-93.
6. *Some Applications of Barycentric Computations*, Internat. J. Math. Ed. Sci. Tech. 31 (2) (2000), 293-309.

7. *Rays of Light Trapped in Conics*, Internat. J. Math. Ed. Sci. Tech. 31 (5) (2000), 758-773.
8. (with M. Schaps) *Graphic Representations for Associative Algebras*, Missouri J. of Math. Sc. 12 (3) (2000),183-192.
9. *Matricial Computations: Classroom Practice with a Computer Algebra System*, Eur. J. of Engin. Educ. 26 (1) (2001), 29-37.
10. *Barycentres and metric properties*, Int. J. Math. Ed. Sci. Tech. 32 (6) (2001), 914-921.
11. (with A. Naiman) *Closed paths of light trapped in a closed Fermat curves*, Int. J. Math. Ed. Sci. Tech. 33 (6) (2002), 865-877.
12. (with D. Cohen) *An algebraic remark on the Fourier series of a trigonometric polynomial*, Missouri J. of Math. Sc. 15 (2) (2003), 94-97.
13. *Complex numbers and plane geometry*, Int. J. Math. Ed. Sci. Tech. 34 (2) (2003), 257-271.
14. (with R. Lidor, Y. Gross, S. Shimoni, O. Gafni, T. Sivan and M. Gross) *The student as a researcher: creating opportunities to enhance research among teaching trainees* (in Hebrew), Dape Yuzma 2, Mofet Inst. (2003) 9-23.
15. (with J. Steiner) *The importance of "low level" CAS commands in teaching Engineering Mathematics*, European J. of Engin. Educ. 29 (1) (2004), 139 - 146.
16. (with J. Steiner) *Teaching Mathematical Integration : Human Thinking versus Computer Algebra*, Int. J. Math. Ed. Sci. Tech. 35 (2) (2004), 249-258.
17. *Retroreflection*, J. of Interdisciplinary Math. 7 (3) (2004), 373-388.
18. *Explicit closed forms for parametric integrals*, Int. J. Math. Ed. Sci. Tech. 35 (3) (2004), 456-467.
19. *Technology as a bypass for a lack of theoretical knowledge*, Int. J. of Techn. in Math. Educ. 11 (3), 2005.

20. *Parametric integrals and symmetries of functions*, to appear in Mathematics and Computer Education.
21. *Parametric integrals and Catalan numbers*, Int. J. Math. Ed. Sci. Tech. 36 (4) (2005), 410-414.
22. *Plane Transformations in a complex setting I: homotheties-translations*, to appear in Int. J. Math. Ed. Sci. Tech.
23. *Enhancing conceptual insight: plane curves in a computerized learning environment*, to appear in Int. J. of Techn. in Math. Educ.

7.2 Refereed Conference Proceedings.

1. *Generic Algebras in dimension 6*, Israel Conf. Proc., Vol. 1, Weizmann Science Press, (1989), 53-60.
2. *7-dimensional Generic Algebras with mixed basis-graph*, Representations of Algebras, (Tsukuba, 1990), 123–158, CMS Conf. Proc., 11, Amer. Math. Soc., Providence, RI, 1991.
3. (with M. Schaps) *A computer assisted project: Classification of Algebras*, Computational algebraic geometry and commutative algebra (Cortona, 1991), 71-83, Sympos. Math., XXXIV, Cambridge Univ. Press, Cambridge, 1993.
4. (with J. Meyer) *Problem Solving in Mathematics and Physics*, Proc. of the 2nd Int. Conf. on Teacher Educ. (1997), Mofet Inst., Tel-Aviv.
5. (with M. Schaps) *Non reduced Components of Alg_n* , Algebras and modules, II (Geiranger, 1996), 111–120, CMS Conf. Proc., 24, Amer. Math. Soc., Providence, RI, 1998.
6. *Internet aided courses in Mathematics for Engineers*, Proc. of ITEM European Conf.(Integrating Technologies into Mathematics Education) , J.B. Lagrange ed., Reims (France), 2003; <http://www.reims.iufm.fr/Recherche/ereca/itemcom>
7. (with J. Steiner) *Enhancing conceptual insight using a CAS*, Proceedings of CAME conference, Reims (France), 2003, <http://ltsn.mathstore.ac.uk/came/events/reims/3-ShortPres-DanaPicard.pdf>

8. (with Z. Deutsch and A. Kadari) "*Alefefes*": *Students of Education create and publish a mathematical quarterly and an interactive site*, Proc. of ICME-10 Conference, SG4, Copenhagen, Ed Barbeau and al. (eds), 2004, 189-196.
9. *Three-fold activities for discovering conceptual connections within the cognitive neighborhood of a mathematical topic*, to appear in Proc. of TIME-2004 (ACDCA symposium), Proc. of TIME-2004 (ACDCA symposium) in Montreal (Canada), J. Böhm (ed.), bk teachware Schriftenreihe 41, Linz, Austria.
10. *Technology assisted discovery of conceptual connections within the cognitive neighborhood of a mathematical topic*, to appear in Proc. of CERME 4, Barcelone, 2005.
11. *Internet aided courses in Mathematics for Engineers: a multi-campus management*, accepted for ED-MEDIA, World Conference on Educational Multimedia, Hypermedia and Telecommunications, Montreal, June 2005.

7.3 Publications under process.

7.4 Submitted.

1. *Sequences of definite integrals*, submitted to iJMEST.
2. *Plane Transformations in a complex setting II: isometries*, submitted to iJMEST.
3. *Factorials, double factorials and Sequences of definite Integrals*, submitted to Journal of Integer Sequences.
4. *Two related parametric definite integrals*, submitted to the College Mathematics Journal.
5. (with I. Kidron) *To see or not to see*, submitted to IJTME.
6. (with I. Kidron, M. Komar and J. Steiner) *Undergraduate Engineering - A Comparative Study of First Year Performance in Single Gender Campuses*, submitted for a special issue of EJEE.
7. (with I. Kidron, M. Komar and J. Steiner) *Using ICT in Managing Foundation Year Courses for Engineers*, submitted for a special issue of EJEE.

7.5 Preprints and papers in preparation.

1. *The exploration of conceptual connections within the cognitive neighborhood of a mathematical notion*, under revision.
2. *Plane Transformations in a complex setting III: similarities*.
3. (with N. Zehavi) *Integrating Methods in the Study of Envelopes*.
4. *Various configurations of parabolic mirrors*.
5. *Closed forms for parametric integrals and Fourier-like series*.
6. *Technology-based exploration and capillary connections*.
7. *Two interesting situations with a pedagogy-embedded Computer Algebra System*.
8. (with Z. Deutsch and A. Kadari): *Distance mentoring in Mathematics*.

7.6 Book in preparation

(with N. Zehavi) *Analytic Geometry: Theory and Activities with the Derive Software*, Dept of Science Teaching, Weizmann Inst., Rehovot.

7.7 Other Publications.

1. *Sur quelques problèmes de déformation en Géométrie Algébrique*, Thèse de 3^o cycle, Nice (1981).
2. *Classifying Generic Algebras*, Ph.D. Thesis, Bar-Ilan University, (1990).
3. *Problem Solving in Mathematics (in Hebrew)*, Jerusalem College of Technology (1995), 140 p, Research Project of the Ministry of Education.
4. Translation and Editorial Work for “Help Material for a Course in Linear Algebra”, by A. Naimark, 1/e (1997), 2/e (1998), J.C.T.

5. *The search after Fermat's Last Theorem* (in Hebrew), to appear in Shnaton, Talpiot College, Tel-Aviv 2004.
6. (with Z. Deutsch and A. Kadari) *Ezereshet-Distance Mentoring*, Proc. of ICME-10 Conference, Copenhagen, 2004,
http://www.icme-organizers.dk/tsg15/Deutsch_et_al.pdf

8 URL:

<http://ndp.jct.ac.il/index.html>

9 Conference presentations.

1. 4.1.88: *Classifying generic Algebras*, invited 20-minute talk, Conf. in Ring Theory in Honor of Prof. Amitsur, Bar-Ilan University.
2. 22.5.90: *Generic Algebras with Mixed Basis-graph*, 25-minute talk, Annual Meeting of the Israel Mathematical Union.
3. 13.8.90: *Alg_n is a non reduced variety for $n \geq 6$* , invited 30-minute talk, Int. Conf. on Representations of Algebras and Related Topics V, University of Tsukuba, Japan.
4. 14.3.91: *Parameterized Families of Algebras and Non-reduced Components*, invited one hour talk, Conf. des Math. de la Région, Université de Haute-Alsace, Mulhouse, France.
5. 19.6.91: *Classification of Algebras: a computer assisted project, with the ALGDEF program*, 30-minute talk, Conf. on Comp. Alg. Geom. and Comm. Alg., Cortona (Scuola normale Superiore di Pisa), Italy.
6. 23.7.92: *Deformations of Modular Group-Algebras; results and Examples*, invited one-hour talk, Workshop on Deformations of Modular Group-Algebras, Inst. für Experimentelle Mathematik, Essen, Germany.
7. 8.7.92: *Méthodes graphiques pour l'étude des algèbres associatives*, Poster, First European Congress of Mathematicians, Paris, France.

8. 18.8.93: *Deformations of Modular Group-Algebras of Small Dimension*, 30-minute talk, Conf. on Non-Commutative Algebra and representation Theory, Oberwolfach, Germany.
9. 1.7.96: *A method for Problem Solving in Mathematics and Physics* (with J. Meyer), 20-minute talk, 2nd Int. Conf. on Teacher Education, Netanya, Israel.
10. 2.7.96: *Aleph-0: a Networked Computerized Project for Mathematical Education* (with Z. Deutsch and A. Kadari), 20-minute talk, 2nd Int. Conf. on Teacher Education, Netanya, Israel.
11. 6.8.96: *Twisted Group Algebras*, 30-minute talk, Int. Conf. on Representation Theory of Algebras and related Topics VIII, Geiranger, Norway.
12. 31.5.00: *Polygons, curves and beams of light*, 75-minute invited talk, Amitsur Center for Math. Didactics, Hebrew University, Jerusalem.
13. 12.02.02: *Internet aided courses in Mathematics*, 20-minute talk, First Meital Conference, Technion, Haifa.
14. 07.01.03: *Using Derive in Mathematical Education*, 2-hour tutorial, Meeting of the group "Technology Assisted Teaching in Mathematics", Mofet Institute, Tel-Aviv.
15. 22.06.03 *Internet aided courses in Mathematics for Engineers*, 40-minute communication, European ITEM Conference, Reims, France.
16. 24.06.03 *Enhancing conceptual insight using a CAS*, invited short communication, CAME Symposium, Reims, France.
17. 08.07.04 *Alef Efes: Students of Education Create and Publish a Mathematical Quarterly and an Interactive Site* (with Z. Deutsch and A. Kadari), Int. Conf. on Math. Educ. ICME-10, Copenhagen, Denmark.
18. 08.07.04 *Ezereshet- Distance Mentoring* (with Z. Deutsch and A. Kadari), Poster, Int. Conf. on Math. Educ. ICME-10, Copenhagen, Denmark.

19. 16.07.04 *Three-fold activities for discovering conceptual connections within the cognitive neighborhood of a mathematical topic*, 25-minute invited conference, symposium TIME-2004, Montreal, Canada.
20. 18.02.05 *Technology assisted discovery of conceptual connections within the cognitive neighborhood of a mathematical topic*, 45-minute contributed talk, CERME 4, Sant Feliu de Guixols, Spain.