Charalampos Charitos

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Department of Natural Resources Management & Agr. Engineering
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EDUCATION

Ph.D. in Mathematics, University of Crete, Crete, Greece, 1986
M.A. in Mathematics, University of Orsay, Paris XI, France, 1982
B.Sc. in Mathematics, University of Athens, Athens, Greece, 1980

RESEARCH INTERESTS

Geometric Topology
Topology of Low Dimension
Hyperbolic Geometry

ACADEMIC POSITIONS

Current Position: Professor, Agricultural University of Athens,

Visiting Professor, Depart. of Math., Rutgers University, NJ USA,

Visiting Professor, Depart. of Math., Strasbourg University U.L.P., France,

PAPERS

1. Ch. Charitos, *Surfaces with Congruent Shadow-Lines*, Mathematika, 37, p. 45-58, 1990.

2. Ch. Charitos, P. Pamfilos, *Surfaces with Isometric Geodesics*, Proceedings of the Edinbourgh Math. Society, 34, p. 359-362, 1991.

3. Ch. Charitos, *Hypersurfaces with Congruent Geodesics*, Math. Nachr. 155, p. 221-229, 1992.

4. Ch. Charitos, *Foliations with Singularities of Morse Type on Compact Surfaces of Genus zero*, Math. Nachr. 169, p. 81-88, 1994.

5. Ch. Charitos, *Open Surfaces with Congruent Geodesics*, Proceedings of the Edinburgh Math. Soc., 38, p. 179-183, 1995.

6. Ch. Charitos, *Closed Geodesics on Ideal Polyhedra of Dimension 2*, Rocky Mountain Journal of Mathematics, 26, p. 507-521, 1996.

7. Ch. Charitos, G. Tsapogas, *Complexity of Geodesics on 2-dimensional Polyhedra and Isotopies*, Math. Proceedings of the Cambridge Philosophical Soc., 121, p. 343-358, 1997.

8. Ch. Charitos, *Compressible Ends of Leaves in Foliated 3-manifols*, Journal of the Australian Math. Society. (Series A) 63, p. 208-217, 1997.

9. Ch. Charitos, G. Tsapogas, *Geodesic Flow on Ideal Polyhedra*, Ganadian J. Math. 49, p. 697-707, 1997.

10. Ch. Charitos, G. Tsapogas, *Closed Geodesics on 2-dimensional χ-geometric Polyhedra*, Houston J. of Mathematics, p. 185-196, vol 24, 1998

11. Ch. Charitos, G. Tsapogas, *Approximation of Recurrence in Negatively Curved Spaces*, Pacific Journal in Mathematics, p. 67-79 Vol. 195, 2000.

12. P Sakkalis, Ch. Charitos, *Approximating Curves via Alpha Shapes*, Graphical Models and Image Processing 61, p.165-176, 1999.

13. Ch. Charitos, A. Papadopoulos, *The Geometry of ideal 2- dimensional simplicial complexes*, Glasgow Math. Journal, 43, p. 39-66, 2001.

14. Ch. Charitos, G. Tsapogas, *Topological mixing in CAT (-1) spaces*, Trans. Amer. Math. Soc., 178, p. 235-264, 2001.

15. Ch. Charitos, G. Tsapogas, *Characterization of mixing in quotients of R-trees*, Q. J. Math. 54, n^o 4, p. 399-413, 2003.

16. Ch. Charitos, A. Papadopoulos, *Hyperbolic structures and measured foliations on 2-dimensional complexes*, Monatsh. Math. 139, n^o 1, p. 1-17, 2003

17. Ch. Charitos, I. Papadoperakis, *On the geometry of hyperbolic surfaces with a conical singularity*, Ann. Global Anal. Geom. 23, n^o 4, p. 323-357, 2003.

18. Ch. Charitos, *A generalization of the Poincare-Bendixson theorem for compact 3-manifolds*, Geom. Dedicata 110, 135-142, 2005

19. Ch. Charitos, A. Papadopoulos, *On the isometries of ideal simplicial complexes*, Rend. Circ. Mat. Palermo (2) 54, 71-80, 2005

20. Ch. Charitos, I. Papadoperakis, *Ergodicity of invariant measures for the geodesic flow on quotient spaces of real trees*, , Houston J. Math. 34 (4) 1121-1143, 2008

21. Ch. Charitos, I. Papadoperakis, E. Vrontakis, *On the boundary of a special class of hyperbolic two dimensional simplicial complexes*, J. Geometry 94, no 1-2, 7-30, 2009.

22. Ch. Charitos, I. Papadoperakis, G. Tsapogas, *Incompressible surfaces in handlebodies and isotopies*, Topology Appl. 155, no 7, 696-724, 2008.

23. Ch. Charitos, I. Papadoperakis, *Parameters for generalized Teichmuller spaces*, Handbook of Theichmuller Theory, Vol. I, 471-506, IRMA Lect. Math. Theor. Phys., 11, Eur. Math. Soc. Zurich 2007.

24. C. Charitos, I. Papadoperakis, G. Tsapogas, On the mapping class group of a genus 2 handlebody, Topology Appl. 158, No 8, 978-995, 2011.

25. Ch. Charitos, I. Papadoperakis, *Generalized Teichmuller space of non-compact 3-manifolds and Mostow rigidity*, Q. J. Math (2011) 62(4): 871-889.

26. Ch. Charitos, U. Oertel, *Essentials disks and semi-essentials surfaces in 3-manifolds,* Topology and its Applications, Volume 159, Issue 8, 15 May 2012, 2174-2186

27. Ch. Charitos, I. Papadoperakis, G. Tsapogas, *A Complex of Incompressible Surfaces for handlebodies and the Mapping Class Group,* Monatsh. Math. 167:405 – 415, 2012

28. C. Charitos, I. Papadoperakis, A. Papadopoulos, *The homeomorphisms of the space of geodesic laminations and the mapping class group of a surface*, PAMS, 142, 2179-2191, 2014.

29. C. Charitos, I. Papadoperakis, G. Tsapogas, *On the Mapping Class Group of a Heegaard splitting*, Glasgow J. of Math. 56, 93-101, 2014.

30. C. Charitos, I. Papadoperakis, *On the geometry of flat surfaces with a single Singularity*, J. Geom. 106, 255-278, 2015.

31. C. Charitos, I. Papadoperakis, G. Tsapogas, The geometry of Euclidean surfaces with conical singularities, to appear in Mathematische Zeitschrift, arXiv:1306.1759

CONFERENCES **(with oral presentation)**

1. 3rd National Congress of Analysis, Ioannina – Geece, 28/5-29/5/1993 "χ-geometrical polyhedra and isotopies".
2. 1st National Congress of Geometry, Ioannina – Geece, "Cylindrical ends of foliations in 3-manifolds".
3. 3rd National Congress of Geometry, Athens, 30/5-31/5/1997, "Morse foliations".

4. 4th National Congress of Geometry, Patras, 28/5-30/5/1999, “Geodesic flow in Gromov hyperbolic spaces”.
5. 5th National Congress of Geometry, Thessaloniki, 31/5–2/6/2001, “Open geodesics in metric spaces of negative curvature”.
6. International Congress Haifa – Israel, Geometric Group Theory, 13/6 – 21/6/2001, “Recurrence in CAT (-1) spaces”.
7. International Congress Boudapest, Hyperbolic Geometry, 8/7 – 12/7/2002, “Topological mixing in CAT (-1) spaces”.
8. National meeting, Patras, 4/12/2004, “Ends of foliations and the topology of 3-manifolds”.
9. 7th National Congress of Geometry, Samos-Greece, 26/5–29/5/2005,“The boundary of hyperbolic 2-dimensional”.
10. International Mediterranean Congress of Mathematics, Almeria-Spain 06/6 – 10/6/2001, “Compressible ends of leaves in foliated 3-manifolds” in the session Topology-Geometry.
11. 8th National Congress of Geometry, Ioannina, 24/5–27/5/2007, “Incompressible surfaces in hadlebodies and isotopies".
12. CIRM Luminy-Marseille, 1-5 Juin 2009, From Braid group to Teichmuller spaces “Automorphisms of the complex of incompressible surfaces”.
13. International Conference on Topology and its Applications. Nafpactos, 26-30/6/2010, “A complex of incompressible surfaces for handlebodies and the mapping class group”.
14. Workshop on 3-dimensional topology and geometry, Marseill, 13-16/9/2010, “Generalized Teichmuller space and Mostow rigidity”.
15. Workshop on “Geometric topology of knots”, May 25-26 CRM “Generalized Teichmuller space and Mostow rigidity for open 3-dimensional manifolds”
16. Geometry and Arithmetic around Teichmuller Theory, 15 – 19 November 2012, Istanbul, Turkey, Invited speaker, “On the homeomorphisms of the space of geodesic laminations and the mapping class group of a surface”.
17. Group actions and applications in Geometry, Topology and Analysis (GAAGTA), 21 – 29 July 2012, The Center of Engineering Mathematics, KMUST, Kunming University, China, Invited speaker, “On the mapping class group of a Heegaard splitting”.
18. International Seminar on History of Mathematics, 27-28 November 2013, Ramjas College and University of Delhi, India, Invited speaker, “Geodesics in Euclidean and hyperbolic surfaces”
19. International congress on mathematics and its applications, Mathematical Society of Calcutta, Calcutta, India, 18-21 December 2014, “Affine foliations vs laminations on compact closed hyperbolic surfaces”.
20. 12th National Congress of Geometry, Thessaloniki, 29-31 May 2015, “Topological mixing for Euclidean surfaces with conical singularities”.
21. Congress Strasbourg: “Des Grecs à Euler” September 10-11 2015, “The Cartography in Ptolemy and Euler”.