## CURRICULUM VITAE

1. Personal information:

Name: Lazăr; Surname: Ioana-Claudia; Maiden name: Stan; Date of birth: 17th January 1983; Social status: married, one child; e-mail: lioana@math.ubbcluj.ro

2. Education:

2006 - 2009: PhD studies, Department of Geometry, Faculty of Mathematics and Computer Science, Babes-Bolyai University, Cluj-Napoca, Romania;

PhD thesis: The study of simplicial complexes of non-positive curvature; PhD advisor: Prof. Univ. Dr. Dorin Andrica;

2005 - 2006: Master degree "Algebra and Geometry", Faculty of Mathematics and Computer Science, Babes-Bolyai University, Cluj-Napoca, Romania;

2005 - 2006: Master degree "Data Bases in Internet and Electronic Trading", Faculty of Mathematics and Computer Science, Babes-Bolyai University, Cluj-Napoca, Romania;

2005 - 2006: Master degree "Educational Management", Faculty of Economic Sciences, Vasile Goldis University, Arad, Romania;

2001 - 2005: student, Mathematics and Computer Science, German study line, Faculty of Mathematics and Computer Science, Babes-Bolyai University, Cluj-Napoca, Romania.

3. Working experience:

2009 - present: Research Assistant, CNCSIS Grant PN II IDEL 2162;

2006 - present: Seminaries of Analytical Geometry, Curves and Surfaces, Affine Geometry, Geometry for Computer Scientists (Faculty of Mathematics and Computer Science, Babes-Bolyai University, Cluj-Napoca, Romania), Descriptive Geometry (Faculty of Geography, Babes-Bolyai University, Cluj-Napoca, Romania);

2008: mentor, AwesomeMath Mathematics Camp (Dallas, USA);

2007: assistant, AwesomeMath Mathematics Camp (Dallas, USA);

2007 - 2008: Project member, CNCSIS Grant No. 1467/2007.

4. Research domain:

Discrete Geometry.

## 5. Published articles:

I. C. Lazăr, V. Revnic, *Morse-Smale characteristic in discrete Morse theory*, in "Contemporary Geometry and Topology and Related Topics" (D. Andrica and S. Moroianu eds.), Cluj University Press, 2008, pp. 201-208;

D. Andrica, I. C. Lazăr, *Discrete Morse theory and curvature properties of simplicial complexes*, in "Automation Computers Applied Mathematics", Vol. 17 (2008) No. 2, pp. 5 - 15;

A. Kristaly, I. C. Lazăr, N. S. Papageorgiou, *A variational inequality on the half line*, in "Nonlinear Analysis Series A: Theory";

I. C. Lazăr, *CAT*(0) simplicial complexes of dimension 2 are collapsible in Proceedings of the International Conference on Theory and Applications of Mathematics and Informatics, ICTAMI 2009, Alba Iulia, (D. Breaz, N. Breaz and D. Wainberg Eds.), Acta Universitatis Apulensis, Special Issue, Aeternitas Publishing House;

I. C. Lazăr, *The collapsibility of square 2-complexes with the 8-property*, Proceedings of the 12th Symposium of Mathematics and its Applications, accepted;

D. Andrica, I. C. Lazăr, *Applications to discrete Morse theory: The collapsibility of CAT(0) hexagonal complexes of dimension* 2, Annals of Oradea University - Mathematics Fascicola, accepted;

D. Andrica, I. C. Lazăr, *Cubical 2-complexes with the 8-property admit a strongly convex metric*, Acta Universitatis Apulensis, accepted.

6. Articles sent to publication:

I. C. Lazăr, Applications to discrete Morse theory: The collapsibility of *CAT*(0) cubical complexes of dimension 2 and 3;

I. C. Lazăr, The collapsibility of hexagon 2-complexes with the 12-property;

D. Andrica, I. C. Lazăr, *The collapsibility of locally 6-large, strongly convex, 3-dimensional simplicial complexes;* 

D. Andrica, I. C. Lazăr, *Hexagonal 2-complexes with the 12-property admit a strongly convex metric.* 

7. Given talks:

*Morse-Smale characteristic in discrete Morse theory,* the 8th Seminary on Differential Geometry and its Applications, Cluj-Napoca, August 19th–25th, 2007, poster;

*Discrete Morse theory and curvature properties of simplicial complexes,* Theodor Angheluţa Seminary, Băişoara, September 10th–12th, 2008;

*Collapsing cell-complexes of dimension* 2 *and* 3, Seminary of Geometry and Analysis, Institute of Mathematics, University of Augsburg, December, 3rd, 2008

(http://www.math.uni-augsburg.de/Math-Net/scripts/VK/Query?Action= Select&Select.Typ= Semester&Select.Jahr=2008&Select.Semester= Winter&Select.Reihe=Oberseminar%20Geometrie%20und%20Analysis);

*CAT*(0) *simplicial complexes of dimension* 2 *are collapsible*, International Conference on Theory and Applications of Mathematics and Informatics, Alba-Iulia, September 3rd–6th, 2009;

*The collapsibility of square* 2*-complexes with the* 8*-property,* The 12th Symposium of Mathematics and its Applications, Timişoara, November 5th–7th, 2009;

Applications to discrete Morse theory: The collapsibility of CAT(0) hexagonal complexes of dimension 2, International Conference of Sciences, Oradea, November 12th–14th, 2009.

8. Visits:

"Joseph Fourier" Institute, Grenoble, France (23th November - 8th December 2007), financed by CNCSIS Grant No. 1467/2007;

Institute of Mathematics, University of Augsburg, Germany (15th October 2008 – 15th January 2009), financed by the Erasmus-Sokrates programme.

9. Spoken languages:

German: fluent (Deutsches Sprachdiplom);

English: fluent (The Oxford Examination in English as a Foreign Language);

French: satisfying.