

# Curriculum Vitae, Cesar Ceballos

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CONTACT INFORMATION	Fakultät für Mathematik Universität Wien Oskar-Morgenstern-Platz 1 A-1090 Vienna, Austria	tel: +43 677 61585718 E-mail: cesar.ceballos@univie.ac.at <a href="http://www.mat.univie.ac.at/~cesar/">http://www.mat.univie.ac.at/~cesar/</a>
PERSONAL INFORMATION	Date of birth: October 9, 1987 Citizenship: Colombia Marital Status: Married, one son, one daughter	
RESEARCH INTERESTS	My research is motivated by interactions between algebraic, combinatorial, and geometric structures. I am highly interested in their connections with other areas of mathematics and science. Some specific areas and topics I am interested in include: <ul style="list-style-type: none"><li>• Discrete Geometry, Polytopes, Simplicial Complexes and Topological Spheres</li><li>• Algebraic, Enumerative, and Geometric Combinatorics</li><li>• Cluster Algebras, Cluster Complexes and Coxeter Groups</li><li>• Hopf Algebras and Structure Constants</li><li>• Calabi-Yau Geometry, Toric Varieties and Tropical Geometry</li></ul>	
POSITIONS	Postdoctoral Fellow at Universität Wien Banting Postdoctoral Fellow at York University Visitor member of the Fields Institute Postdoctoral Fellow at Freie Universität Berlin	2015 – 2013 – 2015 2013 – 2015 2012 – 2013
EDUCATION	<b>Freie Universität Berlin</b> , Berlin, Germany <i>Ph.D. in Mathematics, Summa Cum Laude</i> <ul style="list-style-type: none"><li>• Thesis: On associahedra and related topics</li><li>• Advisor: Professor Günter M. Ziegler</li></ul> <b>Universiteit Utrecht</b> , Utrecht, The Netherlands <i>Master Class on Aspects of Calabi-Yau Geometries</i> <ul style="list-style-type: none"><li>• Thesis: A combinatorial model for a torus fibration of a K3 surface in the large complex structure</li><li>• Advisor: Professor Jan Stienstra</li></ul> <b>Universidad de los Andes</b> , Bogota, Colombia <i>M.Sc. in Mathematics</i> <ul style="list-style-type: none"><li>• Thesis: The system of permutations of a fine mixed subdivision of a simplex</li><li>• Advisor: Professor Federico Ardila</li></ul> <b>Universidad del Valle</b> , Cali, Colombia <i>B.Sc. in Mathematics, Magna Cum Laude</i> <ul style="list-style-type: none"><li>• Thesis: Series incondicionalmente convergentes y normalmente sumables en espacios de Banach</li><li>• Advisor: Professor Guillermo Restrepo</li></ul>	2009 – 2012 2008 – 2009 2007 – 2008 2002 – 2006

- HONOURS AND AWARDS      Banting Postdoctoral Fellowship, Government of Canada's most prestigious award for postdoctoral researches, 2013-2015  
 Postdoctoral Fellowship, RTG "Methods for Discrete Structures", 2012-2013  
 Doctoral Fellowship, RTG "Methods for Discrete Structures", 2009-2012  
 MRI Master Class Fellowship, 2008-2009  
 Student Scholarship Award for Art and Science, Mazda Foundation, 2008  
 Student Research Project Grant, Proyecto Semilla, Universidad de los Andes, 2008  
 Master and Teaching Assistant Fellowship, Universidad de los Andes, 2007-2008  
 Second best graduating undergraduate student, Universidad del Valle, 2007  
 Bronze Medal, IX Ibero-American Mathematical Olympiads for university students, 2006  
 Honorable mention, VII Ibero-American Mathematical Olympiads for university students, 2004
- GRANTS                      Government of Canada, Banting Award, project "Combinatorial Hopf Algebra of Polytopes and Structure Constants", 140.000 CAD in research funding for a period of two years with additional 30.000 CAD granted by York University (120.000 EUR total), 2013-2015.
- PUBLICATIONS            (My up-to-date list of publications is available at <http://www.mat.univie.ac.at/~cesar/>)  
 11 articles in international journals, both general (*Adv. Math.*, *Trans. AMS*) and specialized (*Combinatorica*, *DCG*, *Elec. J. Comb.*, *Europ. J. Comb.*, *J. Alg. Comb.*, *J. Beitr. Alg. Geom.*, *JCTA*).  
 1 publication of a chapter in a book.  
 8 articles in international conference proceedings.  
 2 preprints.
- SELECTED TALKS        Algebra and Number Theory Seminar, Graz, Austria, November 2016  
 Seminar at École Polytechnique, Palaiseau, France, April 2016.  
 The 76th Séminaire Lotharingien de Combinatoire, Domaine Saint-Jacques, France, April 2016.  
 Formal Power Series and Algebraic Combinatorics, FPSAC, Daejeon, South Korea, July 2015  
 UBC Math Colloquium, University of British Columbia, Canada, January 2015  
 Coloquio Latino Americano de Algebra, Lima, Peru, December 2014  
 Discrete Geometry and Combinatorics Seminar, Cornell University, USA, November 2014  
 Hall and Cluster Algebras, Centre de Recherches Mathématiques, Montreal, Canada, May 2014  
 Combinatorics Seminar, University of Washington, USA, March 2014  
 60th anniversary of the Mathematics Department, Universidad del Valle, Colombia, January 2014  
 XIX Colombian Mathematics Conference, Barranquilla, Colombia, July 2013  
 Formal Power Series and Algebraic Combinatorics, FPSAC, Paris, France, June 2013  
 Combinatorics Seminar, University of Minnesota, USA, May 2013  
 Formal Power Series and Algebraic Combinatorics, FPSAC, Nagoya, Japan, July-August 2012  
 Algebra-Geometry-Combinatorics Seminar, San Francisco State University, USA, November 2011  
 Algebra and Discrete Mathematics Seminar, UC Davis, USA, November 2011  
 Applied Algebra Seminar, York University, Canada, November 2011  
 LaCIM Seminar, LaCIM, Canada, November 2011  
 Graduate Colloquium, Zurich, Switzerland, November 2010  
 MDS Monday Colloquium, Berlin, Germany, May 2009
- AFFILIATIONS AND MEMBERSHIPS      University of Vienna, since 2015  
 York University, 2013-2015  
 Fields Institute, 2013-2015  
 Discrete Geometry Group, Freie Universität Berlin, 2009-2013  
 DFG research training group "Methods for Discrete Structures", 2009-2013  
 Berlin Mathematical School, 2009-2013  
 SFSU-Colombia Combinatorics Initiative, since 2007

TEACHING EXPERIENCE Professor, Differential Calculus with Applications, York University, Summer 2015  
Professor, Differential Calculus with Applications, York University, Fall 2013  
Instructor, Calculus III, Vector Calculus and Linear Algebra, Universidad de los Andes, 2008  
Instructor, Linear Algebra, Universidad de los Andes, 2007  
Instructor, Calculus I, Universidad del Valle, 2006  
Teacher, Mathematical Olympiads for high school students, Intercambio Estudiantil, 2004, 2005, 2006  
Teacher, Mathematical Olympiads for high school students, Hispanoamericano, Cali, 2005, 2006  
Teacher, Mathematical Olympiads for high school students, Liceo Tacuri, Cali, 2006  
Instructor, Mathematical Olympiads for university students, Universidad Javeriana, Cali, 2005

ACADEMIC ACTIVITIES Co-chair of the organizing committee, Sixth Encuentro Colombiano de Combinatoria ECCO 2018  
Instructor, Workshop on Mathematics and Robotics, Clubes de Ciencia Colombia, Medellín, 2016  
Organizer, Fifth Encuentro Colombiano de Combinatoria ECCO 2016  
Organizer and Program Committee Member, Fourth Encuentro Colombiano de Combinatoria ECCO 2014  
Organizer, Third Encuentro Colombiano de Combinatoria ECCO 2012  
Organizer, Rational Combinatorics Seminar, University of Vienna, 2015 - present  
Organizer, Combinatorics Working Seminar, University of Vienna, 2015 - present  
Organizer, Applied Algebra Seminar, York University, 2013 - 2015  
Organizer, Algebraic Combinatorics Seminar, Fields Institute, 2013 - 2015  
Organizer, Reading Seminar on Schubert Calculus, Fields Institute, 2013 - 2014  
Organizer, Seminar on Polyhedral Combinatorics, FU Berlin 2012  
Organizer, Seminar on Associahedra and Related Structures, FU Berlin 2011-2012  
Student Representative of the Berlin Mathematical School, 2010-2011

STUDENT SUPERVISION Andrés Saldaña, undergraduate thesis “Tutte polynomials, knots, and medial graphs”.  
Universidad del Valle, (co-supervised jointly with Federico Ardila). Defended on April 13, 2016.  
Hanner Bastidas, undergraduate thesis “Combinatorial properties of a robot moving in a rectangular grid”.  
Universidad del Valle, (co-supervised jointly with Federico Ardila). Defended on October 1, 2015.

LANGUAGES Spanish (native), English (fluent), German (fluent)

#### REFERENCES

**Prof. Federico Ardila**  
San Francisco State University  
San Francisco, USA  
phone: *available on request*  
e-mail: *available on request*

**Prof. Nantel Bergeron**  
York University  
North York, Ontario, Canada  
phone: *available on request*  
e-mail: *available on request*

**Prof. Francisco Santos**  
University of Cantabria  
Santander, Spain  
phone: *available on request*  
e-mail: *available on request*

**Prof. Günter M. Ziegler**  
FU Berlin  
Berlin, Germany  
phone: *available on request*  
e-mail: *available on request*

**Prof. Christian Krattenthaler**  
University of Vienna  
Vienna, Austria  
phone: *available on request*  
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