

## Curriculum vitae of Tamás Hausel

### 1. BIOGRAPHY

Surname: Hausel  
First name: Tamás  
Nationality: Hungarian  
Born: 1972  
Family: spouse - visual artist  
daughter - born 1999

### 2. CONTACT

Phone: +41 (0)21 6930355  
E-mail: [tamas.hausel@epfl.ch](mailto:tamas.hausel@epfl.ch)  
URL: <http://geom.epfl.ch/Hausel/>  
Address: EPFL-SB-MATHGEOM-GEOM  
Lausanne  
1015 Switzerland

### 3. EDUCATION

1997-1998 Visiting Student at the Mathematical Institute, University of Oxford, UK  
1995-1998 Ph.D. in Pure Mathematics at Trinity College, University of Cambridge, UK  
Supervisor: Prof. Nigel Hitchin  
College Contact: Sir Michael Atiyah  
1994-1995 Certificate of Advanced Mathematics (MA) with Distinction at University of Cambridge  
1992 Michaelmas term, Visiting Student at Trinity College, University of Cambridge, UK  
1990-1995 Diploma (MA) in Mathematics, Eötvös Loránd University, Budapest, Hungary  
1982-1990 Fazekas Mihály Primary and Secondary School, Budapest, Special Mathematics class

### 4. EMPLOYMENT

2016- Professor at IST Austria  
2012- Full Professor and director of Chair of Geometry, École Polytechnic Fédéral de Lausanne  
2005-2012 Royal Society University Research Fellow in the Mathematical Institute, University of Oxford  
2007-2012 Tutorial Fellow in Mathematics in Wadham College, Oxford  
2007-2012 University Lecturer in Pure Mathematics in the Mathematical Institute, University of Oxford  
2007-2008 Offered membership at Institute for Advanced Study, Princeton (declined)  
2006 - 2010 Associate Professor at the Department of Mathematics, University of Texas, Austin  
2006 Spring Sloan Research Fellow at the Department of Mathematics, University of Texas, Austin  
2002-2006 Assistant Professor at the Department of Mathematics, University of Texas, Austin  
1999-2002 Miller Research Fellow of the Miller Institute for Basic Research in Science at the Department of Mathematics, University of California, Berkeley;  
mentors: Prof. Nicolai Reshetikhin  
Prof. Bernd Sturmfels  
1998-1999 Member of the Institute for Advanced Study, Princeton  
mentor: Prof. Pierre Deligne  
1998-2001 Awarded Junior Research Fellowship at St John's College, Oxford (declined)

#### 4a. LONGER VISITS

- 2014 3 weeks, "The geometry, topology and physics of moduli spaces of Higgs bundles", IMS, NUS, Singapore
- 2014 2 weeks, Researcher in the Research in Pairs program with Fernando Rodriguez-Villegas and Emmanuel Letellier, Mathematisches Forschungsinstitut Oberwolfach
- 2011 3 weeks, "Nonperturbative Effects and Dualities in QFT and Integrable Systems", Kavli Institute for Theoretical Physics, Santa Barbara
- 2010 3 weeks, guest professor at Geometry and Quantum Field theory cluster, University of Amsterdam
- 2009 3 weeks, visiting professor at University of Montpellier
- 2008 2 weeks, Researcher in the Research in Pairs program with Fernando Rodriguez-Villegas and Emmanuel Letellier, Mathematisches Forschungsinstitut Oberwolfach
- 2007 2 months, Visiting Marie Curie Host Fellow for the Transfer of Knowledge, Rényi Institute of the Hungarian Academy of Sciences
- 1998 3 weeks, Researcher in the Research in Pairs program with Prof. Michael Thaddeus, Mathematisches Forschungsinstitut Oberwolfach

#### 5.SCHOLARSHIPS, AWARDS, PRIZES

- 2013-2018 PI on ERC advanced grant (EUR 1.3M)
- 2014-2017 PI on SNSF standard grant (CHF 153K)
- 2013-2016 PI on SNSF standard grant (CHF 334K)
- 2011-2013 PI on EPSRC standard grant (GBP 157K) (ranked 1st out of 22)
- 2010 Simons Lectures, Stony Brook
- 2010-2013 Extension of Royal Society University Research Fellowship (GBP 390K)
- 2009-2013 PI on EPSRC first grant (GBP 414K) (ranked 1st out of 13)
- 2008 Whitehead prize of the London Mathematical Society
- 2006-2010 PI on NSF grant DMS-0604775 (USD 242K)
- 2005-2010 Royal Society University Research Fellowship (ca. GBP 250K)
- 2005-2007 Alfred P. Sloan Research Fellowship (USD 45K)
- 2005 Summer Research Assignment of the University of Texas at Austin (covering two month summer salary)
- 2003-2006 Co-PI on NSF grant DMS-0305505 (summer salary for 3 years)
- 1999-2002 Miller Research Fellowship  
awarded by the Miller Institute in Basic Research in Science  
at the University of California at Berkeley
- 1997 John Knight essay prize in Mathematics at University of Cambridge  
(placed in Group 1 of 5 groups- with paper: Compactification of moduli of Higgs bundles)
- 1995 Elected Research Scholar of Trinity College, Cambridge
- 1995-1998 Overseas Research Students Award of the British Government  
(which provides the difference between the Home and Overseas Rate  
of the University of Cambridge tuition fees to overseas postgraduate students  
of outstanding merit and research potential)
- 1995-1998 Eastern European Bursary of Trinity College, Cambridge  
(covering all fees and maintenance grant for Ph.D. course in Pure Mathematics at University of Cambridge)

- 1994,1995 Honorary Scholarship of the Cambridge European Trust
- 1994 Eastern European Research Bursary of Trinity College, Cambridge  
(covering fees and maintenance grant for Part III of the Mathematical Tripos of University of Cambridge)
- 1993 First Prize of Rényi Kató Award of Hungarian Academy of Sciences  
(for young mathematicians with exceptional research achievement)
- 1992 Visiting Scholarship of the Peregrinatio Foundation, Budapest  
(covering maintenance grant for a visiting studentship at Trinity College, Cambridge)
- 1992-1995 Scholarship of the Republic of Hungary  
(for outstanding university students; top 1% of the student body)
- 1991 Second Prize at the Essay competition in Mathematics of the Hungarian Ministry of Education  
(with paper: On a Gallai-type problem for lattices)
- 1991 4-5th price at the Schweitzer Miklós competition for university students of Hungary
- 1990 Second Prize at the International Mathematical Olympiad, Beijing;  
Hungarian Team's final result: 6th of 56 teams

## 6.TEACHING EXPERIENCE

- 2012 - Bachelor and Master courses at EPFL
- 2007-2012 Pure mathematics tutorials (all subjects) for pairs of undergraduates  
and admission interviews for Wadham College, Oxford
- Spring 2007 Linear Algebra and Matrix Theory, UT Austin
- Spring 2005 Introduction to Topology (taught by the Moore method), UT Austin
- Fall 2004 Complex Geometry M392C, UT Austin
- Spring 2004 Differential Calculus M408C; UT Austin
- Fall 2003 Riemannian Geometry, M392C, UT Austin
- Spring 2003 Lie Groups and Symplectic Geometry, M392C; UT Austin
- Fall 2002 Differential Calculus, M408C; UT Austin
- 2000 Lecture course at the Summer School of Hungarian Physics Students, Tata, Hungary  
Title of the course: Algebraic curves and integrable systems (6 lectures)
- 1997 Lecture course at the Summer School of Hungarian Physics Students, Óbánya  
Title of the lecture course: Geometric quantization and Chern-Simons theory (6 lectures)
- 1995-1997 (6 terms) Supervisions for undergraduate courses for Trinity College, Cambridge  
supervisions in: Algebra and Geometry (1st year undergraduates)  
Discrete Mathematics (1st year undergraduates)  
Linear Algebra (1st and 2nd year undergraduates)  
Geometry (2nd year undergraduates)  
Differentiable manifolds (3rd year undergraduates)  
(In the Cambridge educational system each undergraduate lecture course is accompanied  
by supervisions, given often by a graduate student, for pairs of undergraduates.)
- 1991-1994 (4 semesters) Instruction classes for undergraduate courses for the Geometry department  
of Eötvös Loránd University  
classes in: Projective Geometry (3rd year undergraduates)  
Vector Geometry I and II (3rd year undergraduates)  
(In the Hungarian educational system each lecture course -given by senior members  
of the department- is accompanied by an instruction class -occasionally given by  
university students- for a class of 10-15 students)

1990-1992 Preparing the Hungarian team for the International Mathematical Olympiad

## 7. RESEARCH GROUP

Dr Nicholas Proudfoot, NSF postdoctoral fellow at UT Austin, 2004-2006  
Prof Fernando Rodriguez-Villegas, visiting professor, Oxford 2009-2010  
Dr Sergey Mozgovoy, postdoctoral research assistant, Oxford 2009-2012  
Mr Michael Gröchenig, graduate student, Oxford 2009-2012, EPFL 2012-2013  
Dr Martin Mereb, postdoctoral research assistant, Oxford 2011-2012, EPFL 2012-2013  
Dr Michael Wong, postdoctoral research assistant, EPFL 2012-  
Dr Mario Garcia Fernandez, postdoctoral research assistant, EPFL 2012- 2014  
Dr Zongbin Chen, postdoctoral research assistant, EPFL 2012-  
Dr Ben Davison, postdoctoral research assistant, EPFL 2013-  
Dr Szilárd Szabó, postdoctoral research assistant, EPFL 2013-2014  
Dr Michael McBreen postdoctoral research assistant, EPFL 2014-2015  
Dr Yohan Brunebarbe postdoctoral research assistant, EPFL 2015-  
Mr Riccardo Grandi, graduate student, EPFL 2012-  
Mr Daniele Boccalini, graduate student, EPFL 2012-  
Mr Dimitri Wyss, graduate student, EPFL 2013-

## 8. INVITED LECTURES

(slides of several talks available at <http://geom.epfl.ch/cms/site/geom/lang/en/Hausel/talks/pdf>)

### 8a. MINI-COURSES

2013 3 lecture mini-course at Geometry and Physics, CRM, Montreal  
2013 3 lecture mini-course at Winter School on the geometry of sheaves in low dimensions, Ascona  
2010 Simons lecture series (3 lectures), Stony Brook  
2010 4-5 lecture minicourse at Summer School on the Hitchin fibration, University of Bonn  
2010 5 lecture mini-course at school on Geometric Langlands and gauge theory, CRM Barcelona  
2009 3 lecture mini-course at the workshop on Quiver varieties, Donaldson-Thomas invariants and instantons, CIRM Luminy  
2009 4 lecture mini-course at Summer school on Geometry of Representations, Cologne  
2000 6 lecture course at the Summer School of the Hungarian Association of Physics Students, Tata, Hungary  
1997 6 lecture course at the Summer School of Hungarian Physics Students, Óbánya, Hungary

### 8b. COLLOQUIA

2014 IMS public lecture, Singapore  
2013 Colloquium, Fribourg  
2012 Fejes-Toth Lecture, Centre for Computational Discrete Geometry, University of Calgary  
2012 Colloquium at Center for Mathematical Physics, Hamburg  
2010 GQT-Colloquium, Leiden  
2010 Colloquium, Amsterdam  
2010 Colloquium, Utrecht  
2010 Algebra, Geometry and Integrable Systems Colloquium, Leeds  
2009 Mathematisches Kolloquium, Bonn

2009 Colloquium at Seoul National University  
2007 Pure Mathematics Colloquium, University of Sheffield  
2004 Colloquium at Rice University, Houston

8c. INVITED CONFERENCE TALKS HONOURING COLLEAGUES

2012 Fields Medal Symposium in honour of Ngo Bao Chau, Fields Institute, Toronto  
2012 De la géométrie algébrique aux formes automorphes: une conférence en l'honneur de Gérard Laumon, Orsay  
2008 Conference on Mathematical Physics and Geometric Analysis  
in honour of Victor Guillemin and Shlomo Sternberg,  
Fields Institute, Toronto  
2006 Geometry conference in honour of Nigel Hitchin, Madrid  
2005 "Calgary workshop in Discrete geometry", in honour of Károly Bezdek, University of Calgary

8d. INVITED CONFERENCE TALKS

2015 Moduli spaces in Geometry, CIRM, Luminy  
2015 Metric and analytic aspects of moduli spaces, Cambridge  
2015 AMS summer institute in Algebraic Geometry, Utah  
2014 Conference The Geometry, Topology and Physics of Moduli Spaces of Higgs Bundles, IMS, NUS, Singapore  
2014 Mirror symmetry, enumerative geometry and related topics, Pavia  
2013 Beyond toric integrability, CIB, Lausanne  
2013 DT-invariants, Paris  
2013 Moduli spaces and their invariants in mathematical physics, CRM, Montreal  
2013 Bonn - Cologne Number Theory and Physics Meeting, Bonn  
2013 Topology of moduli spaces and representations, Miraflores, Madrid  
2012 Geometry and topology of moduli, Humboldt University, Berlin  
2012 Representation Theory and Symplectic Algebraic Geometry, CIRM Luminy  
2012 Advances in hyperkahler and holomorphic symplectic geometry, BIRS, Banff  
2011 Conference on principal G-bundles, ICMAT, Madrid  
2011 keynote speaker at VBAC, Moduli spaces, Newton Institute, Cambridge  
2011 Gauge theory and complex geometry, University of Leeds  
2011 Moduli Spaces and Moduli Stacks, Columbia University  
2011 Equivariant Quantum Cohomology, Mirror Symmetry, and Symplectic Geometry, Simons Center, Stony Brook  
2011 Representation theory of quivers and finite dimensional algebras, Oberwolfach  
2010 keynote speaker at Non-euclidean geometry and its applications, Cluj-Napoca  
2009 Workshop on Mirror symmetry, symplectic geometry and related topics, MIT  
2008 Yorkshire-Durham Geometry day, York  
2008 Conference on Moment Maps, CRM Barcelona  
2007 Workshop on Quaternionic structures in algebraic geometry, University of Glasgow

2007 Théorie de Lie, géométrie et représentations,  
Colloque International, Institut de Mathématiques de Jussieu, Paris, France

2007 Geometry and TQFT, Aarhus, Denmark

2005 Workshop on the Topology of hyperkähler manifolds, Rényi Institute, Budapest

2005 "Summer Institute in Algebraic Geometry", University of Washington at Seattle

2005 "Moment maps in various geometries", Banff International Research Station

2005 Special Session on Geometry and Physics, AMS sectional meeting, Santa Barbara

2004 "Moment Maps and Surjectivity in Various Geometries", AIM, Palo Alto

2003 "Geometric Methods in Algebra and Number Theory", University of Miami

2003 Texas Geometry and Topology Conference, University of Houston

2002 Non-Abelian Hodge Theory workshop, MSRI, Berkeley

2002 Intersection Theory on Stacks workshop, MSRI, Berkeley

2001 Fall Western AMS Section Meeting Irvine, CA, Extremal Metrics and Moduli Spaces

2001 "Geometry of Moduli spaces and Integrable Systems", Workshop in RIMS, Kyoto University, Japan

2001 Workshop on New Interfaces between Geometry and Physics at Miraflores de la Sierra, Madrid, Spain

2000 Workshop on Geometry and Physics at University of Warwick

1994 Conference on convex and discrete geometry, Bydgoszcz

1993 International Conference on Combinatorics, Keszthely

#### 8e. INVITED SEMINAR TALKS

2014 Algebraic Geometry and Moduli Spaces seminar, ETH Zrich

2013 Advanced seminar in algebraic geometry, Zrich

2013 Seminar on Lie theory and moduli spaces, Geneva

2012 Algebra and Geometry seminar, University of Rome "La Sapienza"

2012 Pure Mathematics/Mathematical Physics seminar, University of Cardiff

2011 Pandharipande's seminar, ETH Zürich

2011 Séminaire de géométrie algébrique, Jussieu, Paris

2011 London topology and geometry seminar, Imperial College

2009 COW seminar, Cambridge

2009 Algebra Seminar, Edinburgh

2009 Geometry seminar, University of Tokyo

2009 Nakajima's seminar at RIMS, Kyoto

2009 Algebraic geometry seminar at Seoul National University

2009 SAGA Orsay

2009 Number theory study seminar, UCL, London

2008 Mathematical Physics seminar, Cambridge

2008 Geometry Seminar, Edinburgh

2008 Lie group seminar, University of Geneva  
 2008 Seminar Algebraic Geometry, MPI Bonn  
 2008 London Number Theory Seminar  
 2006 Algebraic Geometry seminar, Columbia University  
 2005 Number theory and representation theory seminar, Nagoya University  
 2005 Geometry seminar, Kyoto University  
 2005 Geometry seminar, University of Edinburgh  
 2005 Joint Algebra and Geometry and Topology seminar University of Glasgow  
 2005 Algebra seminar, University of Leeds  
 2005 Topology and Geometry seminar, Imperial College, London  
 2005 Geometry seminar, University of Cambridge  
 2005 Algebra, topology and geometry seminar, University of Montpellier  
 2005 Algebraic Geometry seminar, l'Institut Fourier, Grenoble  
 2005 Seminaire Chevalley, (Finite groups Seminar) Jussieu, Paris  
 2005 Symplectic Geometry Seminar, University of Toronto  
 2005 Differential Geometry seminar; University of Illinois, Urbana-Champaign  
 2001 Mathematics-Physics seminar at University of Pennsylvania  
 2001 Algebraic methods seminar at Stanford University  
 2001 Geometry seminar at UT Austin  
 2001 Seminars on hyperkähler manifolds, Kyoto University, Japan  
 1999 Topology Seminar at Yale University  
 1998 Topology Seminar at Princeton University  
 1998 Symplectic Geometry and Quantization Seminar at MIT  
 1998 Algebraic Geometry Seminar at Columbia University  
 1997 Geometry and Analysis Seminar at University of Oxford  
 1992 Combinatorics Seminar at University of Cambridge

## 9. CONFERENCES, SEMINARS ORGANIZED

January-June 2016 co-organizer of semester program (with R. Pandharipande, A. Szenes, R. Villegas)  
 Enumerative invariants in low dimensions  
 CIB, EPFL

2012 - Geometry seminar, EPFL, homepage: <http://geom.epfl.ch/page-86500.html>

2013- Geometry working seminar, EPFL, homepage: <http://geom.epfl.ch/op/edit/page-93099.html>

June 2015 Co-organizer (with A. Alexeev and J. Ortega):  
 Conference on Geometric Analysis in honor of the 65th birthday of Tudor Ratiu  
 CIB, Lausanne

April 2014 Co-organizer (with A. Szenes) Quantization of moduli spaces, Geneva

- October 2013 Co-organizer (with E. Letellier and F. R. Villegas)  
Number theory and physics  
Clay Mathematical Institute, Oxford
- June 2013 Co-organizer (with J. Bryan, E. Diaconescu and B. Szendrői)  
Refined invariants in geometry, topology and string theory,  
BIRS, Banff
- Michaelmas 2011 Geometry and analysis seminar, Mathematical Institute, Oxford
- March 2011 Co-organizer (with O. Garcia-Prada, W. Goldman; P. Newstead and N. Hitchin)  
Representations of Surface Groups and Higgs Bundles, Oxford;  
satellite workshop of Moduli Spaces Newton Institute, Cambridge
- June 2007 Co-organizer (with E. Letellier and F. Rodriguez-Villegas) of the conference:  
"Arithmetic harmonic analysis on character and quiver varieties",  
AIM, Palo Alto, California
- March 2004 Co-organizer (with E. Hunsicker and R. Mazzeo) of the conference:  
" $L^2$  harmonic forms in geometry and string theory",  
AIM, Palo Alto, California
- Spring 2002 Co-organizer (with E. Hunsicker and R. Mazzeo) of a joint Berkeley-Stanford research seminar  
"Compactifications"  
Homepage of the seminar: <http://sma.epfl.ch/~hausel/seminars/compactifications/>
- Fall 2000 Organizer of a weekly 2-hour graduate study seminar at UC Berkeley.  
Title of the seminar: Geometry of quiver varieties  
Homepage of the seminar: <http://sma.epfl.ch/~hausel/seminars/quiver/>
- 2000 Co-organizer of the Summer School of Hungarian Physics Students, Tata, Hungary  
Title of the school: Algebraic geometry in Physics
- 1997 Co-organizer of the Summer School of Hungarian Physics Students. Óbánya, Hungary  
Title of the school: Algebraic topology and geometry in Physics

## 10. COMMITTEES

- 2014 Hiring committee for tenure track professorial position in physics EPFL
- 2014 Hiring committee for tenure track professorial position in mathematics EPFL
- 2014 Hiring committee for professorial position in mathematical physics ETHZ
- 2012- EPFL doctoral prize committee
- 2011 Hiring committee for 5-year career development fellowship in pure mathematics, Christ Church College Oxford
- 2011 Hiring committee for University Lecturer in Discrete Mathematics, Mathematical Institute, Oxford
- 2010-2012 Academic policy committee, Wadham College Oxford
- 2008-2010 Computer committee, Wadham College Oxford
- 2007-2008 Graduate Student committee, Wadham College Oxford
- 2007- 2012 Governing body, Wadham College Oxford (all tenured fellows)
- 2006-2007 Budget committee, Department of Mathematics UT Austin (all tenured faculty)

## 11. INVITATIONS TO REFEREE



Funding Agencies: NSF (USA), NSA (USA), SNSF (Switzerland), IRCSET (Ireland), NWO (Netherlands)

Journals: Annals of Mathematics, Inventiones Mathematicae (multiple times), Journal of the AMS, Duke Mathematical Journal (multiple times), Journal of Differential Geometry, Advances in Mathematics, Proceedings of the LMS, Journal of the Mathematical Society of Japan, Topology, Journal of Topology, Crelle, Compositio, Memoirs of the AMS, Transactions of the AMS, American Journal of Mathematics, Journal of Symplectic Geometry, Asian Journal of Mathematics, Journal of Physics A, Transformation Groups, SIGMA, Cambridge University Press

## 12. CO-AUTHORS

Károly Bezdek (University of Calgary, Canada) [4,5]  
Mark de Cataldo (SUNY Stony Brook, USA)[33,34]  
Gábor Etesi (Budapest Institute of Technology, Hungary) [14,16,19]  
Gergely Harcos (Rényi Institute, Budapest, Hungary) [38]  
Eugenie Hunsicker (Loughborough University, UK) [22]  
Nicholas Katz (Princeton University, USA) [28]  
Emmanuel Letellier (University of Caen, France) [30,32,38]  
Endre Jr. Makai (Rényi Institute, Budapest, Hungary) [8,13]  
Rafe Mazzeo (Stanford University, USA) [22]  
Luca Migliorini (University of Bologna, Italy)[33,34]  
Christian Pauly (University of Montpellier II, France)[35]  
Nicholas Proudfoot (University of Oregon, USA) [23]  
Fernando Rodriguez-Villegas (University of Texas, Austin, USA) [28,30,32,38,40]  
Bernd Sturmfels (University of California, Berkeley, USA) [18]  
András Szűcs (Eötvös University, Budapest, Hungary) [8,13]  
Edward Swartz (Cornell University, USA) [24]  
Michael Thaddeus (Columbia University, USA) [15,17,20,21]

## 13. PUBLICATIONS

(10 most important papers with \*; all papers available from <http://geom.epfl.ch/Hausel/publications>)

[41] T. HAUSEL, E. LETELLIER and F. RODRIGUEZ-VILLEGAS: Representations of quivers over commutative Frobenius algebras, (in preparation)

[40] T. HAUSEL, M. MEREK and M. WONG: Arithmetic of wild character varieties, (in preparation)

[39] T. HAUSEL and F. RODRIGUEZ-VILLEGAS: Cohomology of large semiprojective hyperkaehler varieties, (to appear in Proceedings for Conference to honour G. Laumon, June 2012), arXiv:1309.4914

\* [38] T. HAUSEL, E. LETELLIER and F. RODRIGUEZ-VILLEGAS: Positivity for Kac polynomials and DT-invariants of quivers, *Annals of Mathematics*, **177** (2013) 1147–1168, Issue 3, arXiv:1204.2375

[37] T. HAUSEL, E. LETELLIER and F. RODRIGUEZ-VILLEGAS: Arithmetic Harmonic Analysis on character and quiver varieties II (with an appendix by GERGELY HARCOS), *Advances in Mathematics*, Volume 234, 2013, 85–128, arXiv:1109.5202

[36] T. HAUSEL: Global Topology of the Hitchin system, in *Handbook of Moduli II*, editors: Gavril Farkas and Ian Morrison, International Press, 2013, preprint arXiv:1102.1717

[35] T. HAUSEL and C. PAULY: Prym varieties of spectral covers, *Geometry and Topology*, **16** (2012) 1609–1638, preprint arXiv:1012.4748,

[34] M. DE CATALDO, T. HAUSEL and L. MIGLIORINI: Exchange between perverse and weight filtration for the Hilbert schemes of points on two surfaces, *Journal of Singularities*, volume **7** (2013), 23–38, arXiv:math/1012.2583

\* [33] M. DE CATALDO, T. HAUSEL and L. MIGLIORINI: Topology of Hitchin systems and Hodge theory of character varieties: the case  $A_1$ , *Annals of Mathematics*, Volume 175 (2012), Issue 3, 1329–1407, arXiv:1004.1420

- \* [32] T. HAUSEL, E. LETELLIER and F. RODRIGUEZ-VILLEGAS: Arithmetic harmonic analysis on character and quiver varieties, *Duke Mathematical Journal*, **160**, Number 2 (2011), 323-400
- \* [31] T. HAUSEL: Kac conjecture from Nakajima quiver varieties, *Inv. Math.*, **181**, Number 1, 2010, 21-37, arXiv:0811.1569
- [30] T. HAUSEL, E. LETELLIER and F. RODRIGUEZ-VILLEGAS: Topology of character varieties and representations of quivers, *Comptes Rendus*, **348**, Issues 3-4, 2010, 131–135, arXiv:0905.3491
- [29] T. HAUSEL : S-duality in Hyperkähler Hodge theory, in *The Many Facets of Geometry: A Tribute to Nigel Hitchin*, OUP, 2010 , arXiv: 0709.0504
- \* [28] T. HAUSEL and F. RODRIGUEZ-VILLEGAS: Mixed Hodge polynomials of character varieties (with an appendix by NICHOLAS KATZ), *Inv. Math.*, **174**, no. 3, 2008, 555–624. arXiv:math.AG/0612668
- \* [27] T. HAUSEL: Betti numbers of holomorphic symplectic quotients, via arithmetic Fourier transform, *Proc. Natl. Acad. Sci. USA*, **103**, no. 16, 2006, 6120–6124. arXiv: math.AG/0511163
- [26] T. HAUSEL: Mirror symmetry and Langlands duality in the non-Abelian Hodge theory of a curve, in “*Geometric Methods in Algebra and Number Theory*”, Series: Progress in Mathematics, Vol. **235** Fedor Bogomolov, Yuri Tschinkel (Eds.), Birkhäuser 2205 arXiv:math.AG/0406380
- [25] T. HAUSEL: Quaternionic Geometry of Matroids, *Central European Journal of Mathematics* **3** (1), 2005, 26–38. arXiv: math.AG/0308146
- [24] T. HAUSEL AND E. SWARTZ: Intersection forms of toric hyperkähler varieties, *Proc. Amer. Mat. Soc* **134**, (2006), 2403–2409, arXiv: math.AG/0306369
- [23] T. HAUSEL and N. PROUDFOOT: Abelianization for hyperkähler quotients, *Topology* **44** (2005) 231–248, arXiv: math.SG/0310141
- \* [22] T. HAUSEL, E. HUNSICKER and R. MAZZEO: Hodge cohomology of gravitational instantons. *Duke Mathematical Journal* **122** Issue 3, (2004) 485–548, arXiv: math.DG/0207169
- [21] T. HAUSEL and M. THADDEUS: Generators for the cohomology ring of the moduli space of rank 2 Higgs bundles , *Proc. London Math. Soc.*, **88** (2004) 632–658, arXiv:math.AG/0003093.
- \* [20] T. HAUSEL and M. THADDEUS: Mirror symmetry, Langlands duality and Hitchin systems. *Inventiones Mathematicae*, **153**, No. 1, 2003, 197-229. arXiv: math.AG/0205236
- [19] G. ETESI and T. HAUSEL: On Yang-Mills instantons on multi-centered metrics. *Communications in Mathematical Physics*, **235** No. 2 , (2003) 275–288, arXiv: hep-th/0207196
- \* [18] T. HAUSEL and B. STURMFELS: Toric hyperkähler varieties. *Documenta Mathematica*, **7** (2002), 495-534, arXiv: math.AG/0203096
- \* [17] T. HAUSEL and M. THADDEUS: Relations in the cohomology ring of the moduli space of rank 2 Higgs bundles, *Journal of the American Mathematical Society*, **16** (2003), 303-329, arXiv:math.AG/0003094.
- [16] G. ETESI and T. HAUSEL: Geometric construction of new Yang-Mills instantons over Taub-NUT space, *Physics Letters B*, **514** (1-2) (2001) 189–199, arXiv: hep-th/0105118
- [15] T. HAUSEL and M. THADDEUS: Examples of mirror partners arising from integrable systems, *Comptes Rendus des Séances de l'Académie des Sciences. Série I. Mathématique*, **333** (4) (2001) 313–318
- [14] G. ETESI and T. HAUSEL: Geometric Interpretation of Schwarzschild Instantons. *J. Geom. Phys.*, **37** (2001) 126–136, arXiv:hep-th/0003239
- [13] T. HAUSEL, E. MAKAI JR. and A. SZÚCS: Inscribing cubes and covering by rhombic dodecahedra via equivariant topology, *Mathematika* **47** (2000), 371-397, arXiv:math.MG/9906066.
- [12] T. HAUSEL: Vanishing of intersection numbers on the moduli space of Higgs bundles. *Adv. Theor. Math. Phys.*, **2** (1998) 1011–1040, arXiv:math.AG/9805071.
- [11] T. HAUSEL: Compactification of moduli of Higgs bundles. *J. Reine Angew. Math.*, **503** (1998) 169–192, arXiv:math.AG/9804083.
- [10] T. HAUSEL: Geometric quantization and Jones-Witten theory (in Hungarian). In *Algebraic topology and geometry in Physics, (lecture notes of Summer school for Hungarian Physics students, Óbánya, 1997)*, MAFIHE, 85-121, Budapest, 1999

- [9] T. HAUSEL: *Geometry of the moduli space of Higgs bundles*, thesis for Ph.D. in Pure Mathematics, DPMMS, University of Cambridge, submitted August 1998, arXiv:math.AG/0107040
- [8] T. HAUSEL, E. MAKAI, JR. and A. SZÚCS: Polyhedra inscribed and circumscribed to convex bodies. In *Proceedings of the Third International Workshop on Differential Geometry and its Applications and the First German-Romanian Seminar on Geometry (Sibiu, 1997)*, **5**, 183–190, 1997.
- [7] T. HAUSEL: *Moment map, toric varieties and mixed volumes*, dissertation for diploma in Department of Mathematics, Eötvös Loránd University, December 1995
- [6] T. HAUSEL: On a Gallai-type problem for lattices. *Acta Math. Hungar.*, **66** (1-2) (1995) 127–145
- [5] K. BEZDEK and T. HAUSEL: On the number of lattice hyperplanes which are needed to cover the lattice points of a convex body. In *Intuitive geometry (Szeged, 1991)*, 27–31. North-Holland, Amsterdam, 1994.
- [4] K. BEZDEK and T. HAUSEL: Coating by cubes. *Beiträge Algebra Geom.*, **35** (1) (1994) 119–123.
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- [2] T. HAUSEL: On a two dimensional problem in lattice geometry, (in Hungarian) *KÖMAL (Journal of Mathematics and Physics for Secondary Schools)* 1989/3
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