

Biographical Sketch

MARKUS J. PFLAUM

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Professional Preparation

Undergraduate:

Universität München, Germany Physics, 1987 – 1989

Graduate:

University of Texas at Austin Physics, 1990 – 1991

Universität München, Germany Diploma in Physics 1992

Universität München, Germany PhD in Mathematics 1995

Postdoc:

Humboldt-Universität, Berlin, Germany Mathematics, 1995 – 2001
Habilitation 2001

Institut de Mathématiques de Luminy,
Marseille, France Mathematics, 2001 – 2002

Appointments

University of Colorado at Boulder, Professor,
Department of Mathematics June 2012 – present

University of Colorado at Boulder, Associate Professor,
Department of Mathematics August 2007 – May 2012

Goethe-Universität Frankfurt, Germany Professor (C3), 2004–2007

Goethe-Universität Frankfurt, Germany Dozent (C2), 2002–2004

Significant Publications

- [1] M.J. PFLAUM, H. POSTHUMA and X. TANG. *The localized longitudinal index theorem for Lie groupoids and the van Est map*, Advances in Math. **270**, 223–262 (2015)
<http://dx.doi.org/10.1016/j.aim.2014.11.007>
- [2] M.J. PFLAUM, H. POSTHUMA and X. TANG. *The transverse index theorem for proper cocompact actions of Lie groupoids*, J. of Differential Geometry, **99**, 443–472 (2015)
<http://projecteuclid.org/euclid.jdg/1424880982>
- [3] M.J. PFLAUM, H. POSTHUMA and X. TANG. *Geometry of orbit spaces of proper Lie groupoids*, J. für die Reine und Angew. Math. **694**, 49–84 (2014), <http://dx.doi.org/10.1515/crelle-2012-0092>
- [4] H. MOSCOVICI, M. LESCH, and M.J. PFLAUM. *Connes-Chern character for manifolds with boundary and eta cochains*, Memoirs of the AMS, Vol. **220**, Nr. 1036 (2012),
<http://dx.doi.org/10.1090/S0065-9266-2012-00656-3>

- [5] M.J. PFLAUM, H. POSTHUMA and X. TANG. *Cyclic cocycles on deformation quantizations and higher index theorems*, Advances in Math. **223**, 1958–2021 (2010),
<http://dx.doi.org/10.1016/j.aim.2009.10.012>
- [6] J.-P. BRASSELET and M. PFLAUM. *On the homology of algebras of Whitney functions over subanalytic sets*, Ann. Math. **167**, No. 1, 1–52 (2008), <http://dx.doi.org/10.4007/annals.2008.167.1>
- [7] M. PFLAUM. *Analytic and Geometric Study of Stratified Spaces*, Lecture Notes in Mathematics, Bd. **1768**, Springer-Verlag, 2001,
<http://euclid.colorado.edu/~pflaum/papers/PflAGSSS.ps>

Recent Work

- [8] C. FARSI, M.J. PFLAUM, and CH. SEATON. *Stratifications of inertia spaces of compact Lie group actions*,
 Journal of Singularities, Vol. **13**, 107–140 (2015)
<http://dx.doi.org/10.5427/jsing.2015.13f>
- [9] B. GÜNEYSU and M.J. PFLAUM. *The profinite dimensional manifold structure of formal solution spaces of formally integrable PDE's*,
 SIGMA **13** (2017), 003, 44 pages
<https://doi.org/10.3842/SIGMA.2017.003>
- [10] M.J. PFLAUM, H. POSTHUMA and X. TANG. *The Grauert–Grothendieck complex on differentiable spaces and a sheaf complex of Brylinski*,
 Methods and Applications of Analysis Volume 24, Number 2 (2017)
<http://dx.doi.org/10.4310/MAA.2017.v24.n2.a8>
- [11] M.J. PFLAUM and G. WILKIN. *Equivariant control data and neighborhood deformation retractions* (2017)
<http://arxiv.org/abs/1706.09539>,
 to appear in Methods and Applications of Analysis
- [12] H.-CH. HERBIG and M.J. PFLAUM. *Invariant Whitney Functions*,
<http://arxiv.org/abs/1802.00143> (2018),
 to appear in International Journal of Mathematics

Synergistic Activities

- Directing individual studies for Mathematics students at the University of Colorado.
- Associate editor for *Rocky Mountain Journal of Mathematics* in the areas of Differential Geometry and Topology, Global Analysis
- Member of the editorial board for the book series de Gruyter Expositions in Mathematics by de Gruyter Publisher, Berlin, New York
- Joint organization with J. Watts and M. Gekhtman of the *Gone Fishing Meeting* on Poisson-Geometry at the University of Colorado, Boulder, in March 2016
- Joint organization with A. Beaudry (PI), M. Hill, and D. Wilson of the conference *Chromatic Homotopy Theory, Journey to the Frontier* at the University of Colorado at Boulder, May 16 to May 20, 2018.