

## Curriculum Vitae di **Prof. Dr. Jean Ruppenthal**

Professore presso Bergische Universität Wuppertal

Esperto internazionale di analisi complessa, geometria complessa e geometria differenziale complessa.

### **Pubblicazioni**

1. **Estimates for the  $\bar{d}$ -equation on canonical surfaces**  
(with M. Andersson, R. Lärkäng, H. Samuelsson Kalm & E. Wulcan),  
*Journal of Geometric Analysis* **30** (2020), 2974-3001. [[arXiv](#)]
2. **Dolbeault cohomology of complex nilmanifolds foliated in toroidal groups**  
(with A. Fino & S. Rollenske),  
*The Quarterly Journal Of Mathematics* **70** (2019), 1265-1279. [[arXiv](#)]
3. **Chern forms of singular metrics on vector bundles**  
(with R. Lärkäng, H. Raufi & M. Sera),  
*Advances in Mathematics* **326** (2018), 465-489. [[arXiv](#)]
4.  **$L^2$ -Serre duality on singular complex spaces and rational singularities,**  
*International Mathematics Research Notices* **23** (2018), 7198-7240. [[arXiv](#)]
5. **Koppelman formulas on affine cones over smooth projective complete intersections**  
(with R. Lärkäng),  
*Indiana University Mathematical Journal* **67** (2018), 753-780. [[arXiv](#)]
6.  **$L^2$ -theory for the  $\bar{d}$ -operator on complex spaces with isolated singularities,**  
*Annales de la Faculté des Sciences de Toulouse Mathématiques* **28** (2019), 225-258. [[arXiv](#)]
7. **Explicit Serre duality on complex spaces**  
(with H. Samuelsson Kalm & E. Wulcan),  
*Advances in Mathematics* **305** (2017), 1320-1355. [[arXiv](#)]
8. **Modifications of torsion-free coherent analytic sheaves**  
(with M. Sera),  
*Annales de l'Institut Fourier* **67** (2017), 237-265. [[arXiv](#)]
9. **Koppelman formulas on the  $A_1$ -singularity**  
(with R. Lärkäng),  
*Journal of Mathematical Analysis and Applications* **437** (2016), 214-240. [[arXiv](#)]
10. **Parabolicity of the regular locus of complex varieties,**  
*Proceedings of the AMS* **144** (2016), 225-233. [[arXiv](#)]
11.  **$L^2$ -Riemann-Roch for singular complex curves**  
(with M. Sera),  
*Journal of Singularities* **11** (2015), 67-84. [[arXiv](#)]
12. **Adjunction for the Grauert-Riemenschneider canonical sheaf and extension of  $L^2$ -cohomology classes**  
(with H. Samuelsson Kalm & E. Wulcan),  
*Indiana University Mathematical Journal* **64** (2015), 533-558. [[arXiv](#)]
13.  **$L^2$ -theory for the  $\bar{d}$ -operator on compact complex spaces,**  
*Duke Mathematical Journal* **163** (2014), 2887-2934. [[arXiv](#)]

14. **L<sup>2</sup>-properties of the d-bar and the d-bar-Neumann operator on spaces with isolated singularities**  
(with N. Ovreliid),  
*Mathematische Annalen* **359** (2014), 803-838. [[arXiv](#)]
15. **Subelliptic estimates for the dbar-problem on a singular complex space**  
(with D. Ehsani),  
*Journal of Geometric Analysis* **24** (2014), 1844-1859. [[arXiv](#)]
16. **Compactness of the d-bar-Neumann operator on singular complex spaces,**  
*Journal of Functional Analysis* **260** (2011), 3363-3403. [[arXiv](#)]
17. **Friedrichs' extension lemma with boundary values and applications in complex analysis,**  
*Complex Variables and Elliptic Equations* **56** (2011), 423-437. [[arXiv](#)]
18. **An explicit d-bar-integration formula for weighted homogeneous varieties II, forms of higher degree**  
(with E.S. Zeron),  
*Michigan Mathematical Journal* **59** (2010), 283-295. [[arXiv](#)]
19. **On Hartogs' extension theorem on (n-1)-complete spaces**  
(with M. Coltoiu)  
*Journal für die reine und angewandte Mathematik* **637** (2009), 41-47. [[Preprint](#)]
20. **The d-bar equation on homogeneous varieties with an isolated singularity,**  
*Mathematische Zeitschrift* **263** (2009), 447-472. [[arXiv](#)]
21. **The Dolbeault complex with weights according to normal crossings,**  
*Mathematische Zeitschrift* **263** (2009), 425-445. [[arXiv](#)]
22. **An explicit d-bar-integration formula for weighted homogeneous varieties**  
(with E.S. Zeron),  
*Michigan Mathematical Journal* **58** (2009), 441-457. [[arXiv](#)]
23. **About the d-bar equation at isolated singularities with regular exceptional set,**  
*International Journal of Mathematics* **20** (2009), 459-489. [[arXiv](#)]
24. **A d-bar-theoretical proof of Hartogs' extension theorem on Stein spaces with isolated singularities,**  
*Journal of Geometric Analysis* **18** (2008), 1127-1132. [[arXiv](#)]

#### Atti di conferenze

1. **Chern forms of singular metrics on vector bundles,**  
*Oberwolfach Reports* **15** (2018), 2291-2293.
2. **L<sup>2</sup>-Serre duality on singular complex spaces and applications,**  
*Complex Analysis and Geometry*, Proceedings of the KSCV10 Symposium, Springer Proceedings. [[arXiv](#)]
3. **L<sup>2</sup>-cohomology of isolated singularities, integral representation formulas and canonical singularities,**  
*Oberwolfach Reports* **12** (2015), 258-260.
4. **Analytic Serre duality on singular complex spaces,**  
*Oberwolfach Reports* **11** (2014), 2195-2198.

5. **L<sup>2</sup>-cohomology of singular spaces**,  
*Oberwolfach Reports* **8** (2011), 1102-1105.
- 

**Altre pubblicazioni e preprint**

1. **A d-bar theoretical proof of Hartogs' extension theorem on (n-1)-complete spaces**,  
Preprint 2008, [arXiv:0811.1963](https://arxiv.org/abs/0811.1963).

**Autorizzo il trattamento dei dati personali contenuti nel presente curriculum vitae ai sensi del D.Lgs. 196/2003 “Codice in materia di protezione dei dati personali”.**

**Autorizzo la pubblicazione del presente curriculum vitae sul portale di Ateneo “Amministrazione trasparente” in ottemperanza al D.Lgs. 33/2013 e al D.Lgs. 97/2016 e sul portale PERLAPA ai sensi del D.Lgs 165/2001.**