Stanford



Richard Taylor

Barbara Kimball Browning Professor in the School of Humanities and Sciences

Mathematics

Bio

ACADEMIC APPOINTMENTS

- Professor, Mathematics

Teaching

COURSES

2026-27

- Groups and Rings: MATH 120 (Aut)
- Modern Algebra I: MATH 210A (Aut)
- Modern Algebra II: MATH 210B (Win)

2025-26

- Galois Theory: MATH 121 (Win)
- Modern Algebra II: MATH 210B (Win)
- Topics in number theory: MATH 249A (Aut)

2024-25

- Galois Theory: MATH 121 (Win)
- Groups and Rings: MATH 120 (Aut)
- Topics in Number Theory: MATH 249B (Win)

2023-24

- Groups and Rings: MATH 120 (Spr)
- Modules and Group Representations: MATH 122 (Spr)

STANFORD ADVISEES

Doctoral Dissertation Advisor (AC)

STEPAN KAZANIN

Doctoral (Program)

Seungho Song, Zhuo Zhang

Publications

PUBLICATIONS

- **Potential automorphy over CM fields** *ANNALS OF MATHEMATICS*
  Allen, P. B., Calegari, F., Caraiani, A., Gee, T., Helm, D., Le Hung, B. V., Newton, J., Scholze, P., Taylor, R., Thorne, J. A.
  2023; 197 (3): 897-1113

- **On the rigid cohomology of certain Shimura varieties** *RESEARCH IN THE MATHEMATICAL SCIENCES*
  Harris, M., Lan, K., Taylor, R., Thorne, J.
  2016; 3

- **Automorphy and irreducibility of some l-adic representations** *COMPOSITIO MATHEMATICA*
  Patrikis, S., Taylor, R.
  2015; 151 (2): 207–29

- **The image of complex conjugation in l-adic representations associated to automorphic forms** *ALGEBRA & NUMBER THEORY*
  Taylor, R.
  2012; 6 (3): 405–35

- **A Family of Calabi-Yau Varieties and Potential Automorphy II** *PUBLICATIONS OF THE RESEARCH INSTITUTE FOR MATHEMATICAL SCIENCES*
  Barnet-Lamb, T., Geraghty, D., Harris, M., Taylor, R.
  2011; 47 (1): 29–98

- **A family of Calabi-Yau varieties and potential automorphy** *ANNALS OF MATHEMATICS*
  Harris, M., Shepherd-Barron, N., Taylor, R.
  2010; 171 (2): 779–813

- **AUTOMORPHY FOR SOME l-ADIC LIFTS OF AUTOMORPHIC MOD l GALOIS REPRESENTATIONS. II** *PUBLICATIONS MATHEMATIQUES DE L'IHES, NO 108*
  Taylor, R.
  edited by Ghys, E., Bourgain, J., Connes, A., Deligne, P., Gromov, M., Kontsevich, M., Lafforgue, L., Sullivan, D., Voisin, C.
  2008: 183–239

- **AUTOMORPHY FOR SOME l-ADIC LIFTS OF AUTOMORPHIC MOD l GALOIS REPRESENTATIONS** *PUBLICATIONS MATHEMATIQUES DE L'IHES, NO 108*
  Clozel, L., Harris, M., Taylor, R.
  edited by Ghys, E., Bourgain, J., Connes, A., Deligne, P., Gromov, M., Kontsevich, M., Lafforgue, L., Sullivan, D., Voisin, C.
  2008: 1–181