



Department of Mathematics
Annual Report for Graduate Students

Instructions: This form must be submitted to Laurie Wail by April 30th by all graduate students in their third year and beyond. Each student should have a primary and secondary advisor, and both advisors should approve and sign this form. If more space is required for answers to any of the questions below, attach an additional sheet.

Student's name: Niles Johnson _____

Years in Program: 6 _____

Citizenship: U.S. _____

1. Do you have a thesis topic or area? What is it, and what progress have you made?

Yes. Morita theory for triangulated bicategories.

Progress: Developed Morita theory and connection with Azumaya and Brauer theory in triangulated bicategories.

2. Who are your advisors? How much contact have you had with them during the year? What has the nature of that contact been?

Primary Advisor: Peter May; weekly meetings to discuss research.

Secondary Advisor: Vigleik Angeltveit; 1-2 informal meetings per quarter.

3. What papers and/or books have you read over the last academic year effective Autumn 2008, Winter 2009, and Spring 2009?

- Baker-Lazarev: Topological Hochschild cohomology and generalized Morita equivalence
- Dwyer-Greenlees-Iyengar: Duality in algebra and topology
- Caenepeel: Brauer Groups, Hopf algebras, and Galois theory
- Borceux-Vitale: Azumaya categories

4. What seminars and/or courses have you attended regularly?

- Proseminar in algebraic topology
- Topology Seminar
- Spring 2009: attending courses and holding office hours for Paris math program.

5. Have you given any seminar talks during the last academic year effective Autumn 2008, Winter 2009, and Spring 2009?

- October 2008: proseminar talk
- November 2008: talk at Algebraic Topology Conference in Buenos Aires
- January 2009: talk in special session on Homotopy Theory and Higher Categories at Joint Meetings
- February 2009: talk in University of Georgia joint topology and algebra seminar
- June 2009: talk in Paris 13 algebraic topology seminar

6. Will you need summer support? How do you plan to spend the summer?

Yes, I would like summer support. Because I am away during the Spring quarter, I will finish my thesis during the summer and graduate at the end of the summer quarter.

Student's name: Niles Johnson _____

_____ **For Advisors** _____

Is this student making satisfactory progress?_____

Primary advisor's signature:_____

Is this student making satisfactory progress?_____

Secondary advisor's signature:_____