# 2010 Category Theory Octoberfest <br> Dalhousie University, Halifax, Canada <br> October 23-24, 2010 <br> Program 

## Friday, October 22

5:30-8:00: $\quad$ Welcome reception, 319 Chase Building
Saturday, October 23

| 8:30- 9:00: | Coffee and Breakfast |
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| $\begin{aligned} & 9: 00-9: 45: \\ & 9: 45-10: 15: \end{aligned}$ | André Joyal (UQAM): <br> The Koszul sign rule in Feynman diagrams <br> Steve Awodey (CMU): <br> Sketch of the homotopy interpretation of intensional type theory |
| 10:20-10:40: | Coffee Break |
| $\begin{aligned} & 10: 40-11: 10: \\ & 11: 15-11: 45: \\ & 11: 50-12: 20 \end{aligned}$ | Chris Kapulkin (Pittsburgh): <br> $\Pi$ - and $\Sigma$-types in homotopy theoretic models of type theory <br> Peter LeFanu Lumsdaine (Dalhousie): <br> Conservativity principles in dependent type theory: a homotopy-theoretic approach Michael A. Warren (Dalhousie): <br> Combinatorial realizability models of type theory |
| 12:25-2:00: | Lunch |
| $\begin{aligned} & 2: 00-2: 30: \\ & 2: 35-3: 05: \\ & 3: 10-3: 40: \end{aligned}$ | Jonathan Gallagher (Calgary): <br> Differential Join Restriction Categories <br> Geoff Cruttwell (Calgary): <br> Differential and tangent structure for restriction categories <br> Robin Cockett (Calgary): <br> Integral categories |
| 3:45-4:15: | Coffee Break |
| $\begin{aligned} & 4: 15-4: 45: \\ & 4: 50-5: 20: \end{aligned}$ | Fred Linton (Wesleyan): <br> How to see the reals as compact Hausdorff space, and why you'd want to Susan Niefield (Union): <br> A Double Category of Topological Spaces |
| 6:30- | Dinner at Salty's |

## Sunday, October 24

| $8: 15-8: 45:$ | Coffee and Breakfast |
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| $8: 45-9: 15:$ | Alex Hoffnung (Ottawa): <br> Groupoidification and the Hecke Bicategory <br> $9: 20-9: 50:$ |
| Aleks Kissinger (Oxford): |  |
| Frobenius States and a Graphical Language for Multipartite Entanglement |  |
| Gábor Lukács (Manitoba): |  |
| Solving problems in topological groups (and number theory) using category theory |  |$|$| $10: 30-10: 45:$ | Coffee Break |
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| $10: 45-11: 15:$ | Toby Kenney (Dalhousie): <br> Generalised Sup Arrows and the Totally Below Relation <br> Rory Lucyshyn-Wright (York): <br> Totally Distributive Toposes, Continuous Categories, and Injective Toposes <br> Nathan Bowler (Cambridge): <br> Unwirings and exponentiability for multicategories <br> Michael Makkai (McGill): <br> Semi-Strict Omega Categories |
| $12: 55-12: 50-1: 00:$ | Seme |

