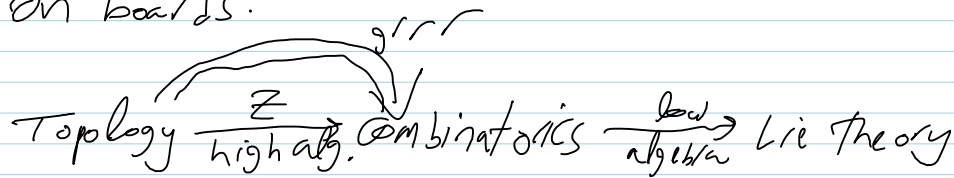


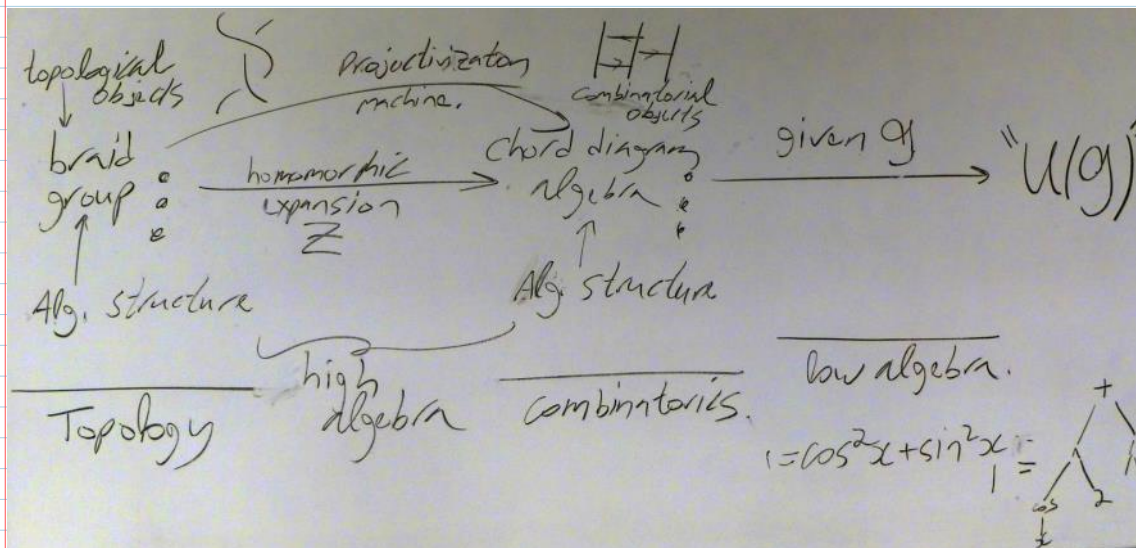
Optimistic Rough Tentative Plan. Overall introduction: $(uvw)x(TCLH)$. Then the u-column to low algebra.

Pasted from <http://www.math.toronto.edu/~drorbn/Talks/Aarhus-1305/>

on boards:



	uko	wko	vko
Topology			
combinatorics			
low alg.			
High Alg.			



	uko	vko	wko
topology	usual knotted objects		2D knotted objects in \mathbb{R}^4
combinatorics			
low algebra	F.d. metrized Lie algebras & their F.d. reps.	Lie bialgebras.	Lie algebras & their duals.
high algebra	Drinfeld Theory of associators.	related to E-K theory of quantization	Kashiwara-Vergne - Aleksev-Torossian theory of "convolutions" on Lie g's & algebras.

Everything I'll say today is over 20 yrs old.

1. $\mathcal{K}^r = \text{ordinary knots}$

$V^r, \mathcal{D}, FI, YT, \mathcal{A}^r \quad \mathcal{K} \vee \mathcal{A}$

The Fundamental Thm.

n	0	1	2	3	4	5	6	7	8	9	10	11	12
$\dim \mathcal{A}_n$	1	1	2	3	6	10	19	33	60	104	184	316	548

2. Examples: Conway, Jones.

Exercise: Verify that W_C satisfies YT

3. Bracket vs \mathcal{K}

4. $W_{g, \mathbb{R}}$

Example: compute $W_{g(m, \mathbb{R}^n)}(D)$

5. $\mathcal{L}_g : \mathcal{A} \rightarrow U(\mathfrak{g})$

6. The bi-algebra structure

7. $F : \mathcal{A}^r \rightarrow \mathcal{A}$