ERRATA

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1. Isométries parfaites dans les blocs à défaut abélien des groupes symétriques et sporadiques

p.665, §3.3.1, l.4: One should read "$C_G(x) = C_H(x) = 3 \times \mathfrak{S}_3$".
p.668, §3.3.4, l.4: One should read "$\tilde{H} = N_{\tilde{G}}(P) = H.2$ (non-trivial extension)".

2. The derived category of blocks with cyclic defect groups

- p.209, proof of Lemma 2.13. "$\phi \in \mathrm{End}_{\mathcal{O}}(M)$" should be replaced by "$\phi \in \mathrm{End}_{\mathcal{O}}(M)^\times$".
- p.220. In the Brauer tree, "$P_{\frac{p-\epsilon}{4}}$" should be "$P_{\frac{p+\epsilon-2}{4}}$".
- p.220, Read "Restricting a surjective map $\bigoplus_{0 \le \lambda \le \frac{p-3}{2}} \ldots$".

3. Block theory via stable and Rickard equivalences

p.119, "5-dimensional" should be "4-dimensional".

4. Categorification of $\mathfrak{sl}_2$ and braid groups

In Theorem 8.3, one should assume in addition that $\mathcal{A}$ is idempotent complete and that η is a split injection.

I thank Paul Balmer for bringing this to my attention. Cf [Paul Blamer, "Descent in triangulated categories", to appear in Math. Annalen] for a study of Barr-Beck Theorem in triangulated categories.

5. Derived equivalences and $\mathfrak{sl}_2$-categorifications

Theorem 6.6: The assumption "$\lambda \ge 0$" is not necessary for the statement of the theorem nor for its proof.

6. Category $\mathcal{O}$ for rational Cherednik algebras

p.621, l.4: "locally finite" should be replaced by "locally nilpotent"
p.621, l.7: "$\mathrm{Hom}_k(B, k)$ should be replaced by "$\mathrm{Homgr}^\bullet_k(B, k)$".

Proof of Corollary 2.8 Let P be a projective object of $\mathcal{O}$ such that every $\Delta(E)$ is a quotient of P. By Proposition 2.2, every object M of $\mathcal{O}$ has an ascending filtration $0 = M_0 \subset M_1 \subset \cdots \subset M$ with $M = \bigcup_i M_i$ and M_i/M_{i-1} is a quotient of $\Delta(E_i)$ for some E_i. By assumption, there are morphisms $f_i : P \to M_i$ that induce surjections $P \to M_i/M_{i-1}$. So, $\sum_i f_i : P^{(\mathbf{Z})} \to M$ is a surjection. It follows that P is a progenerator of $\mathcal{O}$. So, Corollary 2.8 follows from Corollary 2.7.

In the definition in §5.2.5 of the Hecke algebra, one should read $\det(s)^j$ instead of $\det(s)^{-j}$.

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7. Dimensions of triangulated categories

• Proposition 4.8

The statement of the Proposition 4.8 needs to be changed: one assumes $\mathrm{End}^*(X)$ is coherent (*i.e.*, a submodule of a finitely generated module is finitely generated) and one replaces "locally finitely generated" by "locally finitely presented" in the statement of the Proposition.

I thank Hang Xing Chen for pointing out the following issues.

• Proposition 4.13,

(i): One should read "...for any $r \geq 0$, the system $(H_{ni+r})_{i\geq 1}$...".

(iv) One should read "$H_{2n} \to \operatorname{colim} H_i$"

proof of that Proposition

line 3, one should read "Given $i \geq 2$,...".

Let us justify that the left most vertical sequence of the diagram is exact. Let V_i be the homology at the middle of that sequence. There is a surjective map $s_i : H(J) \to V_i$ such that $s_{i+1} = \mathrm{can} \circ s_i$. Since the canonical map $K_i \to K_{i+1}$ evaluates to 0 on $I'[-1]$, it follows that the induced map $V_i \to V_{i+1}$ is 0. We deduce that $V_i = 0$ for $i \geq 2$.

line 10, one should read "By induction...for any $i \geq n$...".

• Proof of Lemma 5.8.

line 9, read "$i_{2*}i_2^! j_{1*}j_1^* C \to$ ...".

In the proof, one should note that since $i_{2*}i_2^* i_{1*}i_1^* \simeq i_{1*}i_1^* i_{2*}i_2^*$, it follows that $i_{2*}i_2^*$ preserves $\mathcal{I}_1$-local objects, hence $j_{2*}j_2^*$ preserves $\mathcal{I}_1$-local objects.

8. Derived equivalences and finite dimensional algebras

Remark 2.14: the conjecture is false. Take $\mathbf{G}$ of type B_2, $\mathbf{L}$ a maximal torus of type w_0. By [Digne, Michel and Rouquier, "Cohomologie des variétés de Deligne-Lusztig", Theorem 3.4], the graded character of $H^*(X_{\mathbf{U}})$ is $1 + q^3(\sigma + \tau + 2\rho) + q^4\mathrm{St}$, where σ and τ are the unipotent characters associated with the linear characters of B_2 different from $1, \varepsilon$ and ρ is the unipotent character associated with the reflection representation.