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**Corrigendum to: Irreducibility of automorphic Galois representations of  $GL(n)$ ,  $n$  at most 5**

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**CORRIGENDUM TO: IRREDUCIBILITY OF  
AUTOMORPHIC GALOIS REPRESENTATIONS OF  
 $GL(n)$ ,  $n$  AT MOST 5**

***Annales de l'institut Fourier*, vol. 63 (2013), n°5, 1881–1912**

by Frank CALEGARI & Toby GEE (\*)

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ABSTRACT. — We explain a serious error in our original paper, which means that the main claimed theorems remain unproved.

RÉSUMÉ. — Nous expliquons une erreur qui invalide la preuve des principaux théorèmes de l'article.

There is an error in (the statement of) Theorem 4.7, namely, it does not apply to the group  $H = GO(V) \subset GL(V)$  when  $\dim(V) = 5$ . This invalidates the proof of Theorem 4.1 both for  $n = 5$  and  $n = 4$ . For  $n = 4$ , our methods seem inadequate to distinguish between the possibility that the Lie algebra of the image is  $\mathfrak{sl}_2 \times \mathfrak{sl}_2$  or  $\mathfrak{sp}_4$ , because these groups have 4-dimensional representations with the same formal character. The most general results that we know of in the case  $n = 4$  are those of [2].

The results of the first three sections remain valid, as do Lemma 4.3 and Corollary 4.4, and the results of Section 5. (The statement of Proposition 4.5 is missing the symmetric square of the standard representation of  $\mathfrak{sl}_3$ .)

We would like to thank Susan Xia for bringing this mistake to our attention.

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*Math. classification:* 11F80, 11R39.

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