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ERRATUM

Erratum to: Divisionally free arrangements of hyperplanes

Takuro Abe[1]

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The aim of this note is to correct the statement and the proof of Theorem 6.2 in the paper published in *Inventiones Mathematicae* **204** (2016), 317–346, which is not correct as it was stated. All the other results in the paper are correct as they were stated. The correct statement of Theorem 6.2 should be as follows:

Theorem 6.2 *Let $\mathbb{K}$ be an arbitrary field, $V = \mathbb{K}^\ell$ and $\mathcal{A}$ a free arrangement in V with $\exp(\mathcal{A}) = (1, d_1, \ldots, d_{\ell-1})$. Assume that distinct hyperplanes $H_1, \ldots, H_{\ell-1} \in \mathcal{A}$ satisfy that,*

(1) $\mathcal{A}'_i := \mathcal{A} \setminus \{H_i\}$ *is free with* $\exp(\mathcal{A}'_i) = (1, d_1, d_2, \ldots, d_{i-1}, d_i - 1, d_{i+1}, \ldots, d_{\ell-1})$ *for* $i = 1, \ldots, \ell - 1$, *and*
(2) $\mathcal{A}' := \mathcal{A} \setminus \{H_1, \ldots, H_{\ell-1}\}$ *is free with* $\exp(\mathcal{A}') = (1, d_1 - 1, \ldots, d_\ell - 1)$.

Then $\mathcal{A} \in \mathcal{DF}$.

Proof The original proof is correct except for the part showing the following statement in its second paragraph; "$D(\mathcal{A}')$ has a basis $\theta_E, \theta_1, \ldots, \theta_{\ell-1}$

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✉ Takuro Abe
abe@imi.kyushu-u.ac.jp

1 Institute of Mathematics for Industry, Kyushu University, Fukuoka 819-0395, Japan

such that the derivations $\theta_E, \alpha_{H_1}\theta_1, \dots, \alpha_{H_{\ell-1}}\theta_{\ell-1}$ form a basis for $D(\mathcal{A})$". To prove this statement, we have to show that "there is a derivation $\theta_i \in D(\mathcal{A}_i')$ $(i = 1, \dots, \ell - 1)$ of degree $d_i - 1$ such that $\theta_i \notin D(\mathcal{A})$, but that $\alpha_{H_i}\theta_i \in D(\mathcal{A})$". Since both $\mathcal{A}$ and $\mathcal{A}_i'$ are free, Terao's addition-deletion theorem implies that there is a basis $\theta_E, \theta_1^{(i)}, \dots, \theta_{\ell-1}^{(i)}$ for $D(\mathcal{A})$ such that $\deg \theta_j^{(i)} = d_j$ $(j = 1, \dots, \ell - 1)$ and $\alpha_{H_i} \mid \theta_i^{(i)}$. If $\theta_i := \theta_i^{(i)}/\alpha_{H_i}$, then $\theta_i \in D(\mathcal{A}_i')\setminus D(\mathcal{A})$. Now the rest proof is the same as the original one. □

Except for Theorem 6.2, all the results and proofs are correct in this paper.

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