SUT Journal of Mathematics
Vol. 45, No. 1 (2009), 87–88

A correction on "On the topology of the complements of quartic and line configurations" (Vol. 44, No. 1 (2008), 125–152)

Kenta Yoshizaki

(Received March 12, 2009)

In our paper [Y], we have studied the complement of QL-configurations using the explicit descriotion of $\pi_1(\mathbb{C}^2 - Q^a)$ by generators and relations and we have also computed the Alexander polynomials. In the last three cases (17), (18) and (19) of Theorem 1.2 in page 128, we claimed the fundamental groups and the Alexander polynomials are given as follows.

No.	presentation of $\pi_1(\mathbb{C}^2_L - C_L)$	$\Delta_C(t, L)$
(17)	$\langle a, b, c \mid ab = bc \rangle$	1
(18)	$\langle a, b, c \mid ab = bc \rangle$	1
(19)	$\langle a, b, c \mid bc = cb,\ bac = cab \rangle$	$(t-1)^2(t+1)$

Unfortunately this Alexander polynomials are wrong. For Case (17) and (18), the fundamental groups are isomorphic to the free group of rank two. Since the Alexander module has no torsion part, in the definition of the Alexander polynomial in page 131, we must understand $\Delta_C(t, L) = 0$. For Case (19), the Alexander matrix is wrong. The correct Alexander matrix is

$$A = \begin{bmatrix} 0 & 1-t & t-1 \\ 0 & 1-t^2 & t^2-1 \end{bmatrix}.$$

The modified table is as follows.

No.	presentation of $\pi_1(\mathbb{C}^2_L - C_L)$	$\Delta_C(t, L)$
(17)	$\langle a, b, c \mid ab = bc \rangle$	0
(18)	$\langle a, b, c \mid ab = bc \rangle$	0
(19)	$\langle a, b, c \mid bc = cb,\ bac = cab \rangle$	0

References

[Y] K. Yoshizaki, *On the topology of the complements of quartic and line configurations*, SUT Journal of Mathematics, **44** (2008), No.1, 125–152.

Kenta Yoshizaki
Department of Mathematics, Tokyo Metropolitan University
Minami Ohsawa 1-1, Hachioji shi, Tokyo 192-0364 , Japan
E-mail: kentayo@hp.catv.ne.jp