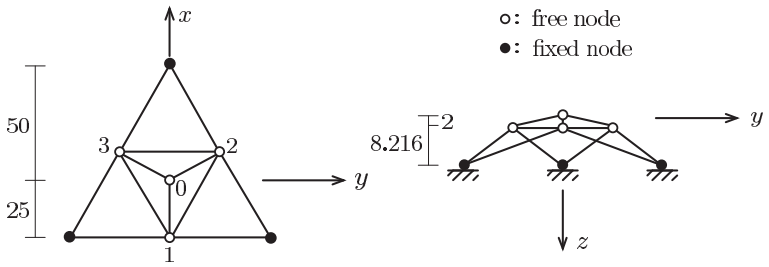
ERRATA (as of March 18, 2019)

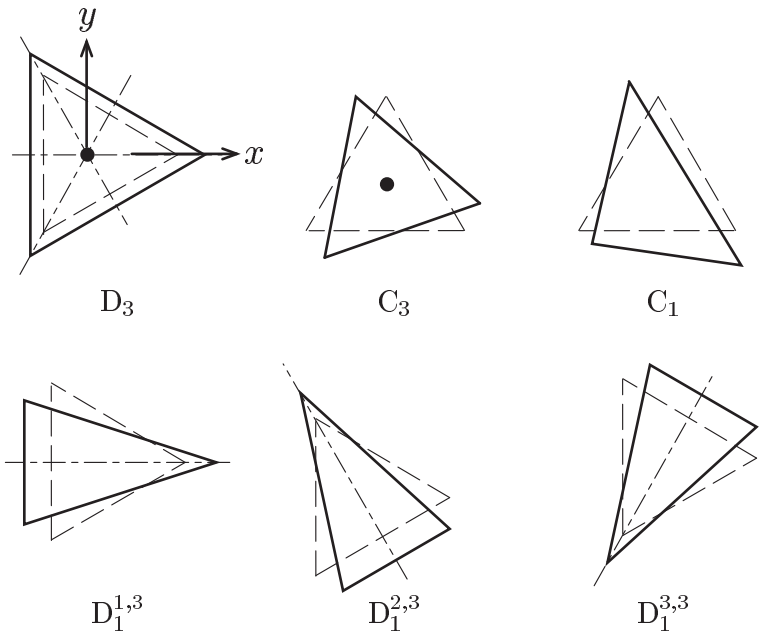
Imperfect Bifurcation in Structures and Materials —Engineering Use of Group-Theoretic Bifurcation Theory, First Edition, Springer, 2002
by Kiyohiro Ikeda and Kazuo Murota

The following corrections should be made on the first edition of the book:

• Page 21, Fig. 1.11: Should look



• Page 21, Fig. 1.12: Should look



• Page 56, Footnote 4: Should read, being equal to the reciprocal of the coefficients in (2.70).

• Page 56, three lines below (2.71): Should read, When the condition of nondegeneracy (2.71) fails with "< 0,"

• Page 57, the equation in the second line: Should read,

$$\frac{\partial \widehat{F}}{\partial w} = 2A_{200}w + A_{110}\widetilde{f} + \text{h.o.t.} = \pm({A_{110}}^2 - 4A_{200}A_{020})^{1/2}\widetilde{f} + \text{h.o.t.}$$

• Page 92, Eq. (4.33), "C" (in each of the three lines): Should read, "$-C$."

• Page 95, Eq. (4.37): Should read,

$$\widetilde{f_{\mathrm{c}}} \sim \frac{\alpha_1 + \cdots + \alpha_5}{\boldsymbol{\xi}^{\mathrm{T}}(\partial \mathbf{F}/\partial f)^0_{\mathrm{c}}}\,\epsilon = -1.0577\epsilon,$$

• Page 103, the first line of Eq. (5.3): Should read, "$C(\mathbf{d}) = C_0 a$" instead of "$C(\mathbf{d}) = -C_0 a$."

• Page 104, the first line of Eq. (5.8): Should read, "$\tilde{a}$" instead of "$-\tilde{a}$."

• Page 157, Eq. (7.6): Should read,

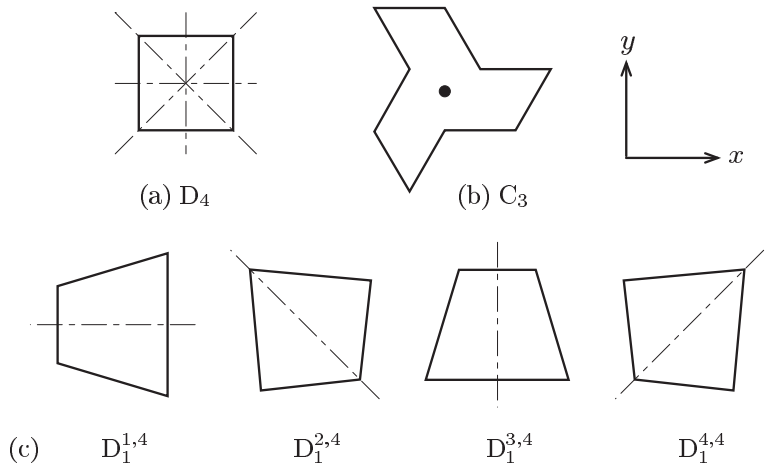
$$T(g)^{-\mathrm{T}}F(u, f) = F(T(g)u, f), \qquad g \in G. \tag{7.6}$$

• Page 165, Eq. (7.28) and the paragraph thereafter: Should read,

$$T(g)^{-\mathrm{T}}\mathbf{F}(\mathbf{u}, f, \mathbf{v}) = \mathbf{F}(T(g)\mathbf{u}, f, S(g)\mathbf{v}), \qquad g \in G. \tag{7.28}$$

This looks slightly different from (7.20) in that $T(g)$ appearing on the left-hand side of (7.20) is replaced by $T(g)^{-\mathrm{T}}$ in (7.28). This difference, however, is not essential, since $T(g)^{-\mathrm{T}}$ and $T(g)$ are equal for a unitary representation T. Therefore, (7.28) can be rewritten in the form of (7.20) with a suitable basis change. See also the argument in Remark 7.4.2.

• Page 184, Fig. 8.1: Should look



(a) D_4 (b) C_3

(c) $\mathrm{D}_1^{1,4}$ $\mathrm{D}_1^{2,4}$ $\mathrm{D}_1^{3,4}$ $\mathrm{D}_1^{4,4}$

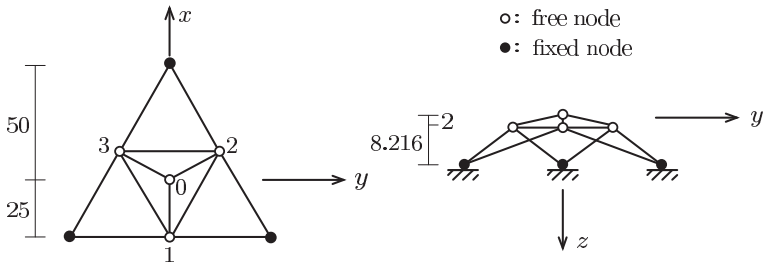
• Page 191, (8.25): Should read,

$$\Sigma(\boldsymbol{\xi}(\alpha_{i+\widehat{n}j})) = \Sigma(\boldsymbol{\eta}(\alpha_{i+\widehat{n}j})) = \mathrm{D}^{i^*,n}_{n/\widehat{n}}, \qquad i = 1, \ldots, \widehat{n}, \quad j = 0, 1, \tag{8.25}$$

where the integer i^* $(1 \le i^* \le n/\widehat{n})$ is determined from i by $(i^*-1)\widehat{j} \equiv i-1 \mod \widehat{n}$, and

• Page 191, $\mathrm{D}^{i,n}_{n/\widehat{n}}$ in two places below (8.26): Should read, $\mathrm{D}^{i^*,n}_{n/\widehat{n}}$.

• Page 194, Fig. 8.4(a): Should look



• Page 211, the fifth displayed equation: Should read,

$$\begin{aligned}
\frac{\partial^2 \widetilde{U}}{\partial r^2} &\approx A_{1010}\widetilde{f} + 3A_{2100}r^2 + (-1)^{k-1}(\widehat{n}-1)A_{0,\widehat{n}-1,00}r^{\widehat{n}-2} \\
&\approx \begin{cases} 2(-1)^{k-1}A_{0200}r & \text{if } \widehat{n} = 3, \\ 3[A_{2100} + (-1)^{k-1}A_{0300}]r^2 & \text{if } \widehat{n} = 4, \\ 3A_{2100}r^2 & \text{if } \widehat{n} \ge 5, \end{cases}
\end{aligned}$$

• Page 221, Line 3 in Remark 8.7.2: Should read, $\mathrm{O}(|\epsilon|^{1/(\widehat{n}-1)})$, instead of $\mathrm{O}(|\epsilon|^{2/(\widehat{n}-1)})$.

• Page 234, Line 3 after (9.2): Should read, "and for all φ for $\widehat{n} \geq 5$."

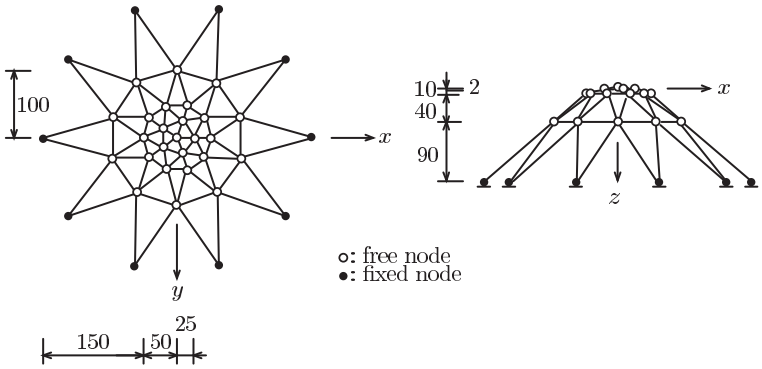
• Page 236, two lines below (9.11): Should read, and $\hat{\tau}(\psi) = \hat{\tau}(\psi; b)$ is a nonlinear function in ψ and $b = -A_{0300}/A_{2100} \cdots$.

• Page 241, the second line in subsubsection **Case** $\widehat{n} = 4$: Should read, Since $C(\boldsymbol{d})$ is dependent on $b = -A_{0300}/A_{2100}$,

• Page 257, the first equation of (10.25): Should read, $\mathrm{E}[\zeta] = -1.91$,

• Page 257, just below the displayed equation $\zeta = -\hat{\tau}(\psi)y$: Should read, where $y = x^{1/3}$ and $\hat{\tau}(\psi) = \hat{\tau}(\psi; b)$ with $b = -A_{0300}/A_{2100} \cdots$.

• Page 270, Fig. 11.4: Should look



• Page 299, the first line of (12.15): Should read, $\{(+, \nu_2, \nu_3)_{\mathrm{D}_{nh}} \mid \nu_2, \nu_3 = +, -\}$

• Page 304, the last displayed equation: Should read,

$$\check{n} = \begin{cases} 2\widehat{n} & \text{if } \widehat{n} \text{ is odd and } \nu = -, \\ \widehat{n} & \text{if } \widehat{n} \text{ is even or } \nu = +. \end{cases}$$

• Page 326, "$\Omega = \{(x, y, z) \in \mathbf{R}^3$" in Line 2: Should read, "$\Omega = \{(x, y) \in \mathbf{R}^2$"

• Page 327, the first equation and the next line in Remark 13.6.1: Should read,

$$G_0' = \langle \sigma_x \sigma_y \rangle \simeq \mathrm{D}_1, \qquad \text{in which } \sigma_x \sigma_y \text{ represents ...}$$

• Page 333, (13.31): Should read,

$$\begin{aligned} \pm k &= \frac{m\tilde{n} - \tilde{m}n}{d}, \qquad \pm l \equiv mp + \tilde{m}\tilde{p} \pmod{d}, \\ \pm k &= \frac{m\tilde{n} + \tilde{m}n}{d}, \qquad \pm l \equiv mp - \tilde{m}\tilde{p} \pmod{d}, \end{aligned} \tag{13.31}$$

where the double-signs correspond in each line of (13.31), and $\cdots$.

• Page 355, the second to the last displayed equation: Should read,

$$\pm k = \frac{m\tilde{n} - \tilde{m}n}{d}, \qquad \pm l \equiv mp + \tilde{m}\tilde{p} \pmod{d},$$

where the double-sign corresponds, and $\cdots$.

• Page 355, the last displayed equation: Should read,

$$\pm k = \frac{m\tilde{n} + \tilde{m}n}{d}, \qquad \pm l \equiv mp - \tilde{m}\tilde{p} \pmod{d},$$

where the double-sign corresponds, and $\cdots$.

• Page 399, [122] in the reference list: Should read, Marsden, J.E. and Ratiu, T.S. instead of Ratiu, S.R.

• Page 403, [184] in the reference list: Should read, Vardoulakis, I. and Sulem, J. (1995), instead of (1992).