Errata for the book "Methods in equivariant bifurcation and Dynamical Systems"
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Many people have contributed to the following list. We thank all of them, special thanks are due to Jörg Härterich and the participants of a seminar at the FU Berlin by Bernold Fiedler.

- p. 18: Formula (1.6) should read

$$[\tau(\mathcal{O}, \mathbf{a})]u(x) = u(\mathcal{O}^{-1}(x - \mathbf{a}))$$

- p. 18: the second factor has a prime, ie $\tau(\mathcal{O}', \mathbf{a}')$.
- p. 38: competing notations Γ_x and $\mathrm{Stab}(x)$ for isotropy subgroups.
- p. 40: entries $1/2$ in matrix R should be $-1/2$.
- p. 40: "these groups fix the points lying on the axes $R\delta$, $R^2\delta$.
- p. 42: after Definition 2.2.1: The sentence should read: Note that if $\mathcal{X}$ and $\mathcal{Y}$ are finite dimensional, $\mathcal{L}$ is always Fredholm, and if $\dim \mathcal{X} = \dim \mathcal{Y}$ then it is Fredholm of index 0.
- p. 43: line 3: should read $\mathcal{F}(U, \mu) = \mathcal{L}U + \mathcal{R}(U, \mu)$
- p. 43: "...where f is a C^k map $\mathcal{N}(\mathcal{L}) \times \mathcal{M} \to \mathcal{N}(\mathcal{L})$."
- p. 43: line 4fb: should read: $v_{pq} = \partial_u^p \partial_\mu^q v(0, 0)$
- p. 43: last line: should read

$$\mathcal{L}v_{pq}(u^{(p)}) + Q\mathcal{R}_{pq}(v_{ij}(u^{(i)})) = 0,\ i \leq p,\ j \leq q, i + j < p + q. \quad (2.5)$$

- p. 45: line 5: replace x and θ by U.
- p. 49: Finite multiplicity of an eigenvalue means that $(\mathcal{L} - \lambda I)^k = 0$"
- p. 56: in formula (2.15), z_j instead of z_m.
- p. 57: in formula (2.18), replace $(x(\tau); \zeta_j^*)$ by $\langle x(\tau); \zeta_j^* \rangle$.

- p. 57: at end of formula (2.18), add "+ C.C.".
- p. 74: $\|x_-(t)\| \leq Ce^{-\xi t},\ t > 0$, and $\|x_+(t)\| \leq Ce^{\xi t},\ t < 0$.
- p. 108: line 2: $\mathfrak{g} \times \mathfrak{g} \to \mathfrak{g}$, moreover A, B denotes a pair of $n \times n$-matrices, which are in $T_{\mathbf{1}}G$.
- p.112 Equation (4.8) replace $0 \leq \psi \leq 2\pi$ by $0 \leq \psi < 2\pi$.
- p. 118 (formula at bottom): "$\rho_1(g) \star \rho_1(g) = \eta^{-1/2}\rho(g)^\star \eta^{1/2}\eta^{1/2}\rho(g)\eta^{-1/2}$".
- p. 119: missing dh under integrals.
- p. 120: "$A\rho(g)w = \rho(g)Aw = \lambda\rho(g)w$".
- p. 121: in Theorem 4.4.10, hypothesis that $\dim(V) < \infty$ is missing.
- p. 124: line 4: $\langle f_1 | f_2 \rangle$.
- p. 125: Proof of Lemma 4.5.8: replace summation by integral
- p. 128: Definition 4.5.18: $\langle \chi | \chi_0 \rangle$
- p. 151: Example 4.10.13: (i) the text applies to $\mathbf{C}_2$ on $\mathbb{R}$. The orbit space of $\mathbf{C}_n$ on $\mathbb{R}^2$ is a cone.
- p. 156: line 10: minus sign on right hand side is missing.
- p. 156: Replace $\mathbb{Z}_n$ by $\mathbf{C}_n$ on this and the following pages.
- p. 157 lines 5/6 fb: Remainder term is missing
- p. 159: "$f(\mu, z) = A_1(\mu, z\bar{z})z + \mathcal{F}$".
- p. 162 (last sentence in proof of Theorem 5.2.2): "By lemma 5.2.5 $\mathcal{R}_G$ is finitely generated...".
- p. 166 Theorem 5.3.1 $\mathcal{R}_G$ and $\mathcal{R}_G^\infty$.
- p. 196: "...and by N_ξ the normal complement to $T\xi\mathcal{O}_\xi$...".
- p. 197: before Theorem 6.2.7: Orthogonality refers to the innerproduct which invariant under the adjoint action of G on $\mathfrak{g}$.

- p. 199: line 2: replace $\mathcal{H}$ by $\mathfrak{h}$ and write $\exp(W_0) \times U_H$.
- p. 199: Proof of Theorem 6.2.10: The sentence "It is clear that such a minimum must exist." is a bit too challenging. It should be replaced by :" An induction over the dimension of V shows that such a minimum must exist, see Bredon [23] for details."
- p. 206, Section 6.2.4: on the contrary to the claim, the computation of the normal form is needed, at least for the linear part of the equations. For otherwise the invariant function b which appears in equations (2.25)-(2.26) could contain a term which is independent of z_1 and z_2, hence making less obvious the application of the invariant Sphere Theorem. This however does not alter the main conclusion of this analysis, which is to show that the bifurcation and stability of periodic solutions can be understood from a topological point-of-view.
- p. 207: (6.29) replace a_r by a_i (only first occurence).
- p. 208: line 3: first term on right hand side should read $2(\mu + i\omega_0 + a)$.
- p. 210: Fig. 6.7 is incorrect as shown, the correct figure can be seen here:

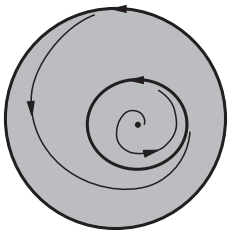

Figure 1: Relative periodic orbit on the projected invariant sphere

- p. 218: Definition 7.2.1 replace S by X (twice).
- p. 315: last paragraph: replace a $x_i(\ldots)$ by ax_i^3. The original form of the equations is correct but confusing.
- p. 316: as a consequence of the change on p. 315 we need to write

$$\langle Q(x), x\rangle = a(x_1^4 + x_2^4 + x_3^4) + \ldots.$$

- p. 320: r_j is a factor of the r.h.s. of equation for $\dot{r}_j$.
- p. 321: In Property (P) (iii), replace $W^s(\xi_{j+1})$ by $W^s(h\xi_{j+1})$.
- p. 320: the condition $\alpha_{nr}+\alpha_{ns} < -4\gamma_r$ must be replaced by $\alpha_{nr}\alpha_{ns} < 0$.
- p. 338: after formulas (9.18)-(9.19), the definition of invariant planes must be replaced by $x_1 = x_4 = 0$, $x_2 = x_4 = 0$ and $x_3 = x_4 = 0$.
- p. 342: l 18, last word should read: looked