ERRATA

k učebnici M.Jukl: *Analytická geometrie*, 1. vyd., Olomouc 2014

V textu učebnice si, prosím, opravte následující tiskové chyby (elektronická podoba se zapracovanými opravami je dostupná na `http://www.kag.upol.cz/data/upload/15/AG-Jukl.pdf`):

strana, řádek	chybně	správně
12^{10}	$f_P : A \to \mathbf{V}$	$f_P : A \to V$
20^4, důsledek 1.1.14	$... + \cdots \mathbf{u}_{k-1})$	$... + \cdots + \mathbf{u}_{k-1})$
45^6, věta 1.4.3	…*jeden podprostor* $\mathcal{M} \subseteq\subseteq \mathcal{A}$	…*jeden podprostor* $\mathcal{N} \subseteq\subseteq \mathcal{A}$
48_4, bod (iii)	… neboli $[C - B] \in V(\mathcal{T})$ …	… neboli $[C - B] \subseteq V(\mathcal{T})$ …
62_{12}, věta 1.4.26	$\mathcal{N}$	$\mathcal{M}$
62_{11}, věta 1.4.26	$p_{\mathcal{R}}$	p_R
75_{10}	$\ldots \wedge X - M \sim \mathbf{v}(\mathrm{mod}\mathbf{W})$	$\ldots \wedge X - B \sim \mathbf{v}(\mathrm{mod}\mathbf{W})$
76_{11}	$t > 0 \wedge t = 0 \wedge t < 0$	$t > 0 \vee t = 0 \vee t < 0$
76_{10}	$(X - B) \sim \mathcal{N}\mathbf{u}(\mathrm{mod}\mathbf{W})$	$(X - B) \sim \mathbf{u}(\mathrm{mod}\mathbf{W})$
77_8	$n(\mathbf{u}) = a_1x_1 + a_2x_2 + \cdots + a_nx_n$	$n(\mathbf{u}) = a_1u_1 + a_2u_2 + \cdots + a_nu_n$
83^2	$X = B + \mathbf{u} = ...$	$X = B + x\mathbf{u} = ...$
83^9	$B = C + t\mathbf{v}$	$B = C + b\mathbf{v}$
85^8	$c \neq 0$	$t \neq 0$
91^3	…*vektor* $\mathbf{z}$ =…	…*vektor* $\mathbf{u}$ =…
100^2	(ii) $a + b + c = 0$	(ii) $a + b + c = 1$
119^4, bod (i)	(i) $\forall \mathbf{u} \in \mathbf{V} : \ \|\mathbf{u}\| = 0$	(i) $\|\mathbf{o}\| = 0$
111^3	$... = \sum_{i=0}^{n}(d_i - c_i)B_i,$	$... = \sum_{i=0}^{n} k(d_i - c_i)B_i,$
113 pod čarou	$\mathbf{A}_0 = (a_{ij})_{mn}$	$\mathbf{A}_0 = (a_{ij})_{nm}$
116^3	$a_{12} + a_2 = 2$	$a_{12} + a_2 = 1$
122^3	…i-tého sloupce a l-tého řádku…	…i-tého řádku a l-tého sloupce…
126_7	$p^* \perp \mathcal{M}$	$p \perp \mathcal{M}$
127^6	$X' - X^*$, odkud plyne…	$X' = X^*$, odkud plyne…
135_2	$(C-B)\mathbf{n} = -(a_1b_1 + a_2b_2 + \cdots + a_nb_n)$	$(C-B)\mathbf{n} = -(a_1b_1 + a_2b_2 + \cdots + a_nb_n) - a_0$
137^8	$... = \sqrt{G(\mathbf{a}_1, \cdots, \mathbf{a}_k)}$	$... = \sqrt{G(\mathbf{u}_1, \cdots, \mathbf{u}_k)}$
137 pod čarou [20]	$...k \neq n + 1...$	$...k \neq n - 1...$
138^8, relace (2.12)	$\rho(B, \mathcal{M}) = \sqrt{\frac{G(\mathbf{u}_1,\mathbf{u}_2,\cdots,\mathbf{u}_k,(C-B))}{G(\mathbf{a}_1,\cdots,\mathbf{a}_k)}}$	$\rho(B, \mathcal{M}) = \sqrt{\frac{G(\mathbf{u}_1,\mathbf{u}_2,\cdots,\mathbf{u}_k,(C-B))}{G(\mathbf{u}_1,\cdots,\mathbf{u}_k)}}$
138_2	$\rho(Q, \mathcal{M}) = \frac{G(\mathbf{u}_1,\mathbf{u}_2,(Q-B))}{G(\mathbf{u}_1,\mathbf{u}_2)}$	$\rho(Q, \mathcal{M}) = \sqrt{\frac{G(\mathbf{u}_1,\mathbf{u}_2,(Q-B))}{G(\mathbf{u}_1,\mathbf{u}_2)}}$
139_{11}	$M \in \mathcal{M}$	$M \in \mathcal{N}$
146 pod čarou	$\mathbf{x} \in V(\mathcal{M}) \cap (V(\mathcal{M}) + V(\mathcal{N}))^\perp$ $\mathbf{y} \in V(\mathcal{N}) \cap (V(\mathcal{M}) + V(\mathcal{N}))^\perp$	$\mathbf{x} \in V(\mathcal{M}) \cap (V(\mathcal{M}) \cap V(\mathcal{N}))^\perp$ $\mathbf{y} \in V(\mathcal{N}) \cap (V(\mathcal{M}) \cap V(\mathcal{N}))^\perp$
148_7, věta 2.4.7	…libovolný vektor nadroviny α	…libovolný normálový vektor nadroviny α
150_4, relace (2.24)	$\measuredangle(p, \mathcal{M}) = \arcsin \frac{\sqrt{G(\mathbf{a}_1,\mathbf{a}_2,\cdots,\mathbf{a}_k,\mathbf{s}))}}{\|\mathbf{s}\|\sqrt{G(\mathbf{u}_1,\cdots,\mathbf{u}_k)}}$	$\measuredangle(p, \mathcal{M}) = \arcsin \frac{\sqrt{G(\mathbf{u}_1,\mathbf{u}_2,\cdots,\mathbf{u}_k,\mathbf{s}))}}{\|\mathbf{s}\|\sqrt{G(\mathbf{u}_1,\cdots,\mathbf{u}_k)}}$

strana, řádek	chybně	správně
$157^{2,3}$	...bod C leží mezi body B, D, tedy $C \in \overline{BD}$...	...bod D leží mezi body B, C, tedy $D \in \overline{BC}$...
157^{5}	Protože $C \in \overline{BD}$...	Protože $D \in \overline{BC}$...
157^{6}	$\rho(B,C) + \rho(D,C) = \rho(B,D)$	$\rho(B,D) + \rho(D,C) = \rho(B,C)$
157^{8}	$\rho(f(B), f(C)) + \rho(f(D), f(C)) = = \rho(f(B), f(D))$	$\rho(f(B), f(D)) + \rho(f(D), f(C)) = = \rho(f(B), f(C))$,
157^{9}	$f(C) \in \overline{f(B)f(D)}$	$f(D) \in \overline{f(B)f(C)}$
158^{11}, relace (2.27)	$\|\mathbf{u}+\mathbf{v}\| = \|\mathbf{u}\| + 2\mathbf{uv} + \|\mathbf{v}\|$	$\|\mathbf{u}+\mathbf{v}\|^2 = \|\mathbf{u}\|^2 + 2\mathbf{uv} + \|\mathbf{v}\|^2$
158_{13}	$\|\varphi(\mathbf{u})+\varphi(\mathbf{v})\|^2+2\varphi(\mathbf{u})\varphi(\mathbf{v})+\|\varphi(\mathbf{v})\|^2$	$\|\varphi(\mathbf{u})+\varphi(\mathbf{v})\|^2=\|\varphi(\mathbf{u})\|^2+2\varphi(\mathbf{u})\varphi(\mathbf{v})+\|\varphi(\mathbf{v})\|^2$
158_{11}, relace (2.28)	$\|\varphi(\mathbf{u}+\mathbf{v})\|^2+2\varphi(\mathbf{u})\varphi(\mathbf{v})+\|\varphi(\mathbf{v})\|^2$	$\|\varphi(\mathbf{u}+\mathbf{v})\|^2=\|\varphi(\mathbf{u})\|^2+2\varphi(\mathbf{u})\varphi(\mathbf{v})+\|\varphi(\mathbf{v})\|^2$
159^{6}	$\mathbf{x}\cdot\mathbf{y} = \sum_i \sum_j x_i y_j \varphi(\mathbf{e}_i \mathbf{e}_j)$	$\mathbf{x}\cdot\mathbf{y} = \sum_i \sum_j x_i y_j (\mathbf{e}_i \cdot \mathbf{e}_j)$
160^{16}, relace (2.31)	$(\|\varphi(\mathbf{u})\|=\|\mathbf{u}\|\wedge\varphi(\mathbf{v})\|=\|\mathbf{v}\|\wedge\varphi(\mathbf{u}+\mathbf{v})\|=$	$(\|\varphi(\mathbf{u})\|=\|\mathbf{u}\|\wedge\|\varphi(\mathbf{v})\|=\|\mathbf{v}\|\wedge\|\varphi(\mathbf{u}+\mathbf{v})\|=$
160^{18}	$\varphi(\mathbf{v})\|$	$\|\varphi(\mathbf{v})\|$
160^{19}	$\varphi(\mathbf{u}+\mathbf{v})\|$	$\|\varphi(\mathbf{u}+\mathbf{v})\|$
201, věta 4.1.5	$h(\mathbf{F}_0)$	$h(\mathbf{F}'_0)$
208 pod čarou	...(ryze) imaginární...	...imaginární...
209_{8}	$\mathbf{F}''$	$\mathbf{F}'$
215^{14}	$(j)\ \ x_j^2 + (2x_jy_j)f_{12} + y_j^2 + (2x_j)f_{13} + ...$	$(j)\ \ x_j^2 f_{11} + (2x_jy_j)f_{12} + y_j^2 f_{22} + (2x_j)f_{13} + ...$
218^{10}	...definice 4.13 a 4.14...	...definice 4.3.6 a 4.3.7...
223^{13}	$Y = [x', y'] \in f(\mathcal{K}) \Leftrightarrow$ $\Leftrightarrow (x, y, 1)(\mathbf{A}^{-1}\mathbf{F}(\mathbf{A}^{-1})^T)(x, y, 1)^T = 0.$	$Y = [x', y'] \in f(\mathcal{K}) \Leftrightarrow$ $\Leftrightarrow (x', y', 1)(\mathbf{A}^{-1}\mathbf{F}(\mathbf{A}^{-1})^T)(x', y', 1)^T = 0.$
225_{5}	$\mathcal{B}' = \langle P, \mathbf{e}'_1, \mathbf{e}'_2\rangle$	$\mathcal{B}' = \langle P', \mathbf{e}'_1, \mathbf{e}'_2\rangle$
240_{8}, příklad 4.7.7	$\frac{x^2}{y^2} - \frac{y^2}{b^2} - 1 = 0$	$\frac{x^2}{a^2} - \frac{y^2}{b^2} - 1 = 0$
246^{3}	$+2(\underline{f_{11}x_0 + f_{12}y_0 + f_{13}})+$ $+2(\underline{f_{12}x_0 + f_{22}y_0 + f_{23}}) + f'_{33} = 0.$	$+2(\underline{f_{11}x_0 + f_{12}y_0 + f_{13}})x'+$ $+2(\underline{f_{12}x_0 + f_{22}y_0 + f_{23}})y' + f'_{33} = 0.$
264, věta 5.1.5	$h(\mathbf{F}_0)$	$h(\mathbf{F}'_0)$
275_{3}	III. $R = 3$	III.1. $R = 3$
277^{10}	$\underline{\bullet\ R = 2}$	$\underline{\bullet\ R = 1}$
281^{11}, věta 5.2.3	$\bullet\ R = 4 \wedge r = 2 \Rightarrow \mathcal{K}$ *je rovina*	$\bullet\ R = 1 \wedge r = 1 \Rightarrow \mathcal{K}$ *je rovina*
285^{3}	...alespoň dva body, jde...	...alespoň dva body a není přímkou, jde...
286_{11}, věta 5.3.7	$\bullet\ R = 4 \wedge r = 2 \Rightarrow \mathcal{K}$ *je rovina*	$\bullet\ R = 1 \wedge r = 1 \Rightarrow \mathcal{K}$ *je rovina*
286_{11}	...(užitím věty 5.3.5)...	...(užitím vět 5.3.4. a 5.3.5)...
306_{5}	...kolmých na $[\mathbf{a}_3]$ (tj. na osu x),	...kolmých na $[\mathbf{a}_1]$ (tj. na osu x),
310^{10}	...kolmých na $[\mathbf{a}_3]$ (tj. na osu x)...	...kolmých na $[\mathbf{a}_1]$ (tj. na osu x)...
312_{12}	...kolmých na $[\mathbf{a}_3]$ (tj. na osu x)...	...kolmých na $[\mathbf{a}_1]$ (tj. na osu x)...
318_{12}	...kolmých na $[\mathbf{a}_3]$ (tj. na osu x),...	...kolmých na $[\mathbf{a}_1]$ (tj. na osu x),...
314^{7}	$V_k = [0, k, \frac{x^2}{2q}]$	$V_k = [0, k, \frac{k^2}{2q}]$

strana, řádek	chybně	správně
316_9	$V_k = [0, k, \frac{x^2}{2q}]$	$V_k = [0, k, \frac{k^2}{2q}]$
316_3	$V_l = [l, 0, -\frac{l^2}{2p}]$	$V_l = [l, 0, \frac{l^2}{2p}]$
316 pod čarou	$y^2 = -2q\left(z + \frac{l^2}{2p}\right)$	$y^2 = -2q\left(z - \frac{l^2}{2p}\right)$
325_8, relace (5.72)	$(x_0, y_0, z_0, z, 1)\,\mathbf{F}...$	$(x_0, y_0, z_0, 1)\,\mathbf{F}...$
326_2, relace (5.75)	$\begin{vmatrix} f_{11} & f_{12} & f_{13} & 0 \\ f_{21} & f_{22} & f_{23} & 0 \\ f_{31} & f_{32} & f_{33} & 0 \\ 0 & 0 & f_{34} & 0 \end{vmatrix}$	$\begin{vmatrix} f_{11} & f_{12} & f_{13} & 0 \\ f_{21} & f_{22} & f_{23} & 0 \\ f_{31} & f_{32} & f_{33} & f_{34} \\ 0 & 0 & f_{34} & 0 \end{vmatrix}$
332, věta 5.9.7	$\mathcal{F}_{31}, \mathcal{F}_{32}, \mathcal{F}_{33}, \mathcal{F}_{3i}, f_{3i}$	$\mathcal{F}_{41}, \mathcal{F}_{42}, \mathcal{F}_{43}, \mathcal{F}_{4i}, f_{4i}$
344^4	$f'_{22}y' + 2f'_{14}x'' = 0$	$f''_{22}y''^2 + 2f''_{14}x'' = 0$

01.04.2023, autor