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A COMPLEMENT TO THE PAPER

“ON THE KOLÁŘ CONNECTION”

[ARCH. MATH. (BRNO) 49 (2013), 223–240]

W.M. Mikulski

On page 229 of [2], we have the following text

“From Corollary 19.8 in [1], we get immediately the following proposition

**Proposition 1.** Let \( p_Y : Y \rightarrow M \) be an \( \mathcal{FM}_{m,n} \)-object and \( p_E : E \rightarrow M \) be a \( \mathcal{VB}_{m,n} \)-object, \( y \in Y_r, x \in M \). Let \((\Gamma, \Lambda, \Phi, \Delta) \in \text{Con}(Y) \times \text{Con}^o_{\text{clas}}(M) \times \text{Par}(Y \times_M E) \times \text{Con}_{\text{lin}}(E)\). There exists a finite number \( r = r(\Gamma, \Lambda, \Phi, \Delta, y) \) such that for any \((\Gamma_1, \Lambda_1, \Phi_1, \Delta_1) \in \text{Con}(Y) \times \text{Con}^o_{\text{clas}}(M) \times \text{Par}(Y \times_M E) \times \text{Con}_{\text{lin}}(E)\) we have the following implication

\[
(j^r_y \Gamma_1 = j^r_y \Gamma, j^r_x \Lambda_1 = j^r_x \Lambda, j^r_y \Phi_1 = j^r_y \Phi, j^r_x \Delta_1 = j^r_x \Delta) \Rightarrow A(\Gamma_1, \Lambda_1, \Phi_1, \Delta_1)(y) = A(\Gamma, \Lambda, \Phi, \Delta)(y).
\]

One can show that the above proposition is true but it is not an immediate consequence of Corollary 19.8 in [1]. From Corollary 19.8, it follows immediately the following weaker result.

**Proposition 1’.** Let \( p_Y : Y \rightarrow M \) be an \( \mathcal{FM}_{m,n} \)-object and \( p_E : E \rightarrow M \) be a \( \mathcal{VB}_{m,n} \)-object, \( y \in Y_r, x \in M \). Let \((\Gamma, \Lambda, \Phi, \Delta) \in \text{Con}(Y) \times \text{Con}^o_{\text{clas}}(M) \times \text{Par}(Y \times_M E) \times \text{Con}_{\text{lin}}(E)\). There exists a finite number \( r = r(\Gamma, \Lambda, \Phi, \Delta, y) \) such that for any \((\Gamma_1, \Lambda_1, \Phi_1, \Delta_1) \in \text{Con}(Y) \times \text{Con}^o_{\text{clas}}(M) \times \text{Par}(Y \times_M E) \times \text{Con}_{\text{lin}}(E)\) we have the following implications

\[
j^r_y \Gamma_1 = j^r_y \Gamma \Rightarrow A(\Gamma_1, \Lambda_1, \Phi_1, \Delta_1)(y) = A(\Gamma, \Lambda, \Phi, \Delta)(y),
\]

\[
j^r_x \Lambda_1 = j^r_x \Lambda \Rightarrow A(\Gamma_1, \Lambda_1, \Phi_1, \Delta_1)(y) = A(\Gamma, \Lambda, \Phi, \Delta)(y),
\]

\[
j^r_y \Phi_1 = j^r_y \Phi \Rightarrow A(\Gamma_1, \Lambda_1, \Phi_1, \Delta_1)(y) = A(\Gamma, \Lambda, \Phi, \Delta)(y),
\]

\[
j^r_x \Delta_1 = j^r_x \Delta \Rightarrow A(\Gamma_1, \Lambda_1, \Phi_1, \Delta_1)(y) = A(\Gamma, \Lambda, \Phi, \Delta)(y).
\]
One can easily see that by Proposition 1’ we get the assumptions (2), (3), (4) and (5) on page 229 in [2]. Namely, by Proposition 1’ we can replace $\Gamma$ by $\Gamma_1$ being polynomial. Next by the same argument we can replace $\Lambda$ by $\Lambda_1$ being polynomial. Next, by the same argument we can replace $\Phi$ by $\Phi_1$ being polynomial. Next, by the same argument we can replace $\Delta_1$ being polynomial.


So, we propose to replace Proposition 1 in [2] by Proposition 1’.

REFERENCES
