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Addendum to "A multiplicity result for nonlocal problems involving nonlinearities with bounded primitive"

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In this addendum, I wish to point out two changes that I expected to do over the galley proofs of [1] which, to the contrary, never reached me.

Namely, in Theorem 1.6, accordingly to Proposition 1.4, the definition of $\hat{\theta}$ has to be changed as follows:

$$\hat{\theta} = \inf_{x \in J^{-1}(]\inf_X J, \sup_X J[\setminus\{0\})} \frac{\psi(x) - \eta(x)}{\varphi(J(x))} .$$

When φ can be extended by continuity to $[-\mathrm{osc}_X J, \mathrm{osc}_X J]$, then no change is needed. That is to say, the equality

$$\inf_{x \in J^{-1}(]\inf_X J, \sup_X J[\setminus\{0\})} \frac{\psi(x) - \eta(x)}{\varphi(J(x))} = \inf_{x \in J^{-1}(\mathbf{R}\setminus\{0\})} \frac{\psi(x) - \eta(x)}{\varphi(J(x))}$$

holds.

In this connection, no change is needed in Theorem 1.7 (where $\varphi(t) = e^t - t - 1$), while in the definition of θ^* in Theorem 1.3, the condition $\int_\Omega F(x, u(x))dx \neq 0$ has to be changed in

$$\int_\Omega F(x, u(x))dx \in]\alpha_f, \beta_f[\setminus\{0\} .$$

Finally, in (1.6), the inequality

$$\inf_{x \in X} (\psi(x) - \mu(e^{J(x)} - 1)) < 0$$

has to be replaced by

$$\inf_{x \in X \setminus J^{-1}(0)} (\psi(x) - \mu(e^{J(x)} - 1)) < 0$$

References

[1] Ricceri B., *A multiplicity result for nonlocal problems involving nonlinearities with bounded primitive*, Stud. Univ. Babeş-Bolyai, Math., **55** (2010), 107-114.

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