Nonlinear Differential Equations and Applications NoDEA



Correction to: Second order local minimal-time mean field games

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Correction to: Nonlinear Differ. Equ. Appl. https://doi.org/10.1007/s00030-022-00767-2

We regret that, during proof correction stage, the following errors were inadvertently made by our production team:

In page 11, all the norms in equation 3.1 are wrong. The correct equation should read:

 $\|\rho_n\|_{L^{\infty}((0,T);L^1(\Omega))} + \|\rho_n\|_{L^q((0,T);W^{1,q}(\Omega))} + \|\partial_t\rho_n\|_{L^q((0,T);W^{-1,q}(\Omega))} \le C.$

In page 12, all the norms in equation 3.2 are wrong. The correct equation should read:

 $\|\varphi_n\|_{L^{\infty}((0,T);H^1_0(\Omega))} + \|\varphi_n\|_{L^2((0,T);H^2(\Omega))} + \|\partial_t\varphi_n\|_{L^2((0,T)\times\Omega)} \le C.$

In page 13, Proof of Claim 1, the denominator was wrong in the equation in fourth line. The correct equation should read:

$$\widetilde{V}(t,x) = \begin{cases} -\kappa(\rho(t,x)) \frac{\nabla \varphi(t,x)}{|\nabla \varphi(t,x)|} & \text{if } \nabla \varphi(t,x) \neq 0, \\ 0 & \text{otherwise,} \end{cases}$$

In page 16, Proof of Lemma 4.3, Step 2: The period before the formula removed

In page 17, Proof of Lemma 4.3, Step 3: The period before the formula removed

In page 18, Proof of Theorem 4.2, Step 2: The text changed to italics

In page 19, Proof of Theorem 4.2, Step 3: The text changed to italics In page 23, the equation in the third line should read as:

$$\|\varphi(t,\cdot)\|_{H^1_0(\Omega)}^2 \ge \|\varphi(s_n)\|_{H^1_0(\Omega)}^2 e^{-C(t-s_n)} - C(1 - e^{-C(t-s_n)})$$

The original article can be found online at https://doi.org/10.1007/s00030-022-00767-2.

The equation 4.9 should read:

 $\|\varphi(t,\cdot)\|^2_{H^1_0(\Omega)} \ge \|\Psi\|^2_{H^1_0(\Omega)} + \varepsilon$

In page 24, Proof of Proposition A.1, Step 1: A period added at the end In page 25, Proof of Proposition A.1, Step 2: The text changed to italics The original article has been corrected.

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