

Correction to our paper: Franziska Kühn, René L. Schilling: “Strong convergence of the Euler-Maruyama approximation for a class of Lévy-driven SDEs”. *Stochastic Processes and Their Applications* **129** (2019), 2654–2680.

In the statement of Itô’s formula, formula (38) of Proposition A.2, the last integral appearing on the right-side ranges only over $(0, t) \times B(0, 1)$ rather than $(0, t) \times \mathbb{R}^d$, i.e.

$$\dots + \iint_{(0,t) \times \mathbb{R}^d} \dots \nu(dy) ds \xrightarrow{\text{should read}} \dots + \iint_{(0,t) \times B(0,1)} \dots \nu(dy) ds \quad (38)$$

We are using (38) on the proof of Theorem 2.1, p. 2668, formula (28). The above mentioned change gives one further term on the right-hand side of (28)

$$\dots - \int_{T_{i-1}}^t \int_{|y| \geq 1} (u_i(s, X_{s^-}^{(n)} + y) - u_i(s, X_{s^-}^{(n)})) \nu(dy) ds \quad (28)$$

leading to an additional term I_6 on p. 2668 (line 4 from below), i.e.

$$|X_t^{(m)} - X_t^{(n)}|^p \leq \dots + C(I_1 + I_2 + I_3 + I_{4,1} + I_{4,2} + I_5 + \boxed{I_6})$$

which is of the form

$$I_6 := \left| \int_{T_{i-1}}^t \int_{|y| \geq 1} H_i(s, y) \nu(dy) ds \right|^p$$

with H_i defined on p. 2669 (line 7 from above). Since $\nu(B(0, 1)^c) < \infty$, we can estimate this term using (29):

$$\mathbb{E} \left(\sup_{T_{i-1} \leq t \leq T_i} |I_6| \right) \leq 2^p \epsilon^p T^p \mathbb{E} \left(\sup_{T_{i-1} \leq s \leq T_i} |X_s^{(m)} - X_s^{(n)}|^p \right) \left(\int_{|y| \geq 1} \nu(dy) \right)^p,$$

as is needed for the rest of the proof.

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