

List of corrections - September 11, 2024

1. page 202, Exercise 9.6: The function c_ε in the hint should be replaced by

$$c_\varepsilon(x) = [\mathbf{1}_{|x| \leq \varepsilon}(x) + \frac{2\varepsilon - |x|}{\varepsilon} \mathbf{1}_{\varepsilon < |x| \leq 2\varepsilon}(x)]x.$$

2. page 209, Remark 10.13: The statement given there is correct, but it is also true that already d -dimensional Brownian motion *in law* and the Poisson process *in law* are Lévy processes in law. The proof is completely the same as the one given in Remark 10.13, which did not refer to the path properties of Brownian motion or the Poisson process.
3. page 217, line 16: In the second sum, the u_j should be replaced by u_m , so that $\sum_{m=k}^u u_j$ there should be replaced by $\sum_{m=k}^n u_m$, so that the full display in lines 15-17 reads as

$$\begin{aligned} & \widehat{\mu}_{\mathbf{t}}(u_1, \dots, u_{j-1}, 0, u_{j+1}, \dots, u_n) \\ &= \phi_{t_{j+1}-t_{j-1}} \left(\sum_{m=j+1}^n u_m \right) \cdot \prod_{\substack{k=1, \dots, n \\ k \neq j, j+1}} \phi_{t_k - t_{k-1}} \left(\sum_{m=k}^n u_m \right) \\ &= \widehat{\mu}_{(t_1, \dots, t_{j-1}, t_{j+1}, \dots, t_n)}(u_1, \dots, u_{j-1}, u_{j+1}, \dots, u_n). \end{aligned}$$

4. page 225, Theorem 10.41, second line within the statement: $L = (L_t)_{t \in I}$ should be an \mathbb{R}^d -valued additive process *in law*, i.e. ‘in law’ should be added within the second line of the statement.
5. page 237, lines 6-8: the jump-size distribution σ should be defined as $\sigma = \xi(\nu_X/\lambda)$ in line 6 (and not as $\xi(\nu_X)$). In line 8 the second and third λ should be deleted, so that the equation reads

$$\int_{u>1} h(u) \lambda \sigma(du) = \int_{x \in \mathbb{R}^d: |x|>1} h(\xi(x)) \nu_X(dx) = \int_{x \in \mathbb{R}^d: |x|>1} g(x) \nu_X(dx).$$