So,

$$\mathbb{P}(A_{mj} \cap E_\varepsilon) \le \int A_{mj}\, P_{t_{mj}}(x)\, dx$$

$$\le \int A_{mj} \times M_f \; \cancel{dx}$$

$$\le \delta M_f \times C_N C_\varepsilon^N d_m^N$$

so for 11.2.29, $\sum_j \mathbb{P}(A_{mj} \cap E_\varepsilon)$

$$= \sum_j \delta M_f C_N C_\varepsilon^N d_m^N$$

$$= \cancel{\delta \sum_j M} \; \delta M_f C_N C_\varepsilon^N \underbrace{\sum_j d_m^N}_{\to C_N \lambda_N(T)}$$

so taking $\delta \to 0$ yields the result.

---

is max $i = 1, \dots, N$, $j = 0, 1$

At start of proof, $\max_{ij} \sup |f_j^i(t)|$ ~~is kind of a typo~~

also get random paths $\mathbb{P}(\sup | \; | < C_\varepsilon)$
as f_j^i is cts by assumption
and so separable. ~~it should be~~ $\max_{ij}$ ~~s.t. $1 \le i \le N$.~~ (arithmetic),

~~need~~ C_1

$j = 0, 1$ ~~one other right~~

PTU