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Kontakt/Contact

Digizeitschriften e.V.
SUB Göttingen
Platz der Göttinger Sieben 1
37073 Göttingen

info@digizeitschriften.de

positive measure μ on G with compact support, the function $N^\beta * \mu$ is continuous on G if $N^\beta * \mu$ is bounded on G and the restriction of $N^\beta * \mu$ to $\mathrm{supp}(\mu)$ is continuous. This follows from Theorem 3.1 and the fact that a positive measure μ on G of compact support for which $N^\beta * \mu$ is bounded, is of finite energy. The last assertion follows from Lemma 2.1 and the estimate

$$\int N^\beta * (\mu * \varphi) d(\mu * \varphi) \leqq \mu(G) \sup_G (N^\beta * \mu),$$

valid for all $\varphi \in \mathscr{K}^+$ such that $\int \varphi(x)dx = 1$, since all the measures $\mu * \varphi$, for $\varphi \in \mathscr{K}^+$, are of finite energy.

Let $(\mu_t)_{t>0}$ be the convolution semigroup on G associated with β [i.e. $\hat{\mu}_t = \exp(-t\psi)$ for $t>0$] and suppose that G has a countable base. The Hunt process on G with transition probabilities defined by $(\mu_t)_{t>0}$ has the property that every semipolar set is polar. This follows by a result of Hunt (see Blumenthal and Getoor [4], p. 291; it is easy to see that the hypotheses are verified in our situation) and the above weak continuity principle.

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Gunnar Forst
Matematisk Institut
Universitetsparken 5
DK-2100 København Ø
Denmark

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