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**Título:** Non-Divergence Equations Structured On Hörmander  
Vector Fields. Heat Kernels And

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In this work the authors deal with linear second order partial differential operators of the following type  $H = \partial_t - L = \partial_t - \sum_{i,j=1}^q a_{ij}(t,x) X_i X_j - \sum_{k=1}^q a_k(t,x) X_k - a_0(t,x)$  where  $X_1, X_2, \dots, X_q$  is a system of real Hörmander's vector fields in some bounded domain  $\Omega \subseteq \mathbb{R}^n$ ,  $A = \{a_{ij}(t,x)\}_{i,j=1}^q$  is a real symmetric uniformly positive definite matrix such that  $\lambda^{-1} |\xi|^2 \leq \sum_{i,j=1}^q a_{ij}(t,x) \xi_i \xi_j \leq \lambda |\xi|^2$  for all  $\xi \in \mathbb{R}^q$ ,  $x \in \Omega, t \in (T_1, T_2)$  for a suitable constant  $\lambda > 0$  and for some real numbers  $T_1 < T_2$ .

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