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	Sommario/riassunto	"In this memoir, time changes of the Brownian motions on generalized Sierpinski carpets including n-dimensional cube $[0, 1]^n$ are studied. Intuitively time change corresponds to alteration to density of the medium where the heat flows. In case of the Brownian motion on $[0, 1]^n$, density of the medium is homogeneous and represented by the Lebesgue measure. Our study includes densities which are singular to the homogeneous one. We establish a rich class of measures called measures having weak exponential decay. This class contains measures which are singular to the homogeneous one such as Liouville measures on $[0, 1]^2$ and self-similar measures. We are going to show the existence of time changed process and associated jointly continuous heat kernel for this class of measures. Furthermore, we obtain diagonal lower and upper estimates of the heat kernel as time tends to 0. In particular, to express the principal part of the lower diagonal heat kernel estimate, we introduce "protodistance"associated with the density as a substitute of ordinary metric. If the density has the volume doubling property with respect to the Euclidean metric, the protodistance is shown to produce metrics under which upper off-