Title: The $\mathcal{L}$-dual of a Matsumoto space

Author(s): Ioana Monica Masca, Vasile Sorin Sabau and Hideo Shimada

In [?, ?] the $\mathcal{L}$-duals of a Randers and Kropina space were studied. In this paper we shall discuss the $\mathcal{L}$-dual of a Matsumoto space. The metric of this $\mathcal{L}$-dual space is completely new and it brings a new idea about $\mathcal{L}$-duality because the $\mathcal{L}$-dual of Matsumoto metric can be given by means of four quadratic forms and 1-forms on $T^*M$ constructed only with the Riemannian metric coefficients, $a_{ij}(x)$ and the 1-form coefficients $b_i(x)$.

Address:
Ioana Monica Masca
Colegiul National de Informatica 'Grigore Moisil' Braşov
Calea Bucureşti 75 Brasov
Romania
E-mail: masca_ioana@rdsbv.ro

Address:
Vasile Sorin Sabau
Hokkaido Tokai University
Minamiku
Minamisawa, 5-1-1-1, Sapporo
Japan
E-mail: sorin@cc.htokai.ac.jp

Address:
Hideo Shimada
Hokkaido Tokai University
Minamiku
Minamisawa, 5-1-1-1, Sapporo
Japan
E-mail: shimada@es.htokai.ac.jp