

arXiv.org > nlin > arXiv:1106.6124

Nonlinear Sciences > Exactly Solvable and Integrable Systems

Equivalence classes of the second order ODEs with the constant Cartan invariant

Vera V. Kartak

(Submitted on 30 Jun 2011)

Second order ordinary differential equations that possesses the constant invariant are investigated. Four basic types of these equations were found. For every type the complete list of nonequivalent equations is issued. As the exampes the equivalence problem for the Painleve II equation, Painleve III equation with three zero parameters, Emden equations and for some other equations is solved.

Subjects:	Exactly Solvable and Integrable Systems (nlin.SI); Mathematical Physics (math-ph); Classical Analysis and ODEs (math.CA)
MSC classes:	53A55, 34A26, 34A34, 34C14, 34C20, 34C41
Journal reference:	Journal of Nonlinear Mathematical Journal of Nonlinear Mathematical Physics, 2010 (on referee)
Cite as:	arXiv:1106.6124 [nlin.SI]
	(or arXiv:1106.6124v1 [nlin.SI] for this version)

Submission history

From: Vera Kartak [view email] [v1] Thu, 30 Jun 2011 06:59:39 GMT (19kb)

Which authors of this paper are endorsers?

Link back to: arXiv, form interface, contact.

(Help | Advan

Search or Article-id

All papers **Download:** PDF PostScript Other formats Current browse cont nlin.SI < prev | next > new | recent | 1106 Change to browse b math math-ph math.CA nlin **References & Citatio** NASA ADS Bookmark(what is this?) 📃 💿 🗶 🚾 🖬 💼 🚽 🏭