

Natural connections for semi-Hamiltonian systems: The case of the ϵ -system

Paolo Lorenzoni, Marco Pedroni

(Submitted on 18 Dec 2009 (v1), last revised 14 Jan 2010 (this version, v3))

Given a semi-Hamiltonian system, we construct an F -manifold with a connection satisfying a suitable compatibility condition with the product. We exemplify this procedure in the case of the so-called ϵ -system. The corresponding connection turns out to be flat, and the flat coordinates give rise to additional chains of commuting flows

Comments: 24 pages

Subjects: **Exactly Solvable and Integrable Systems (nlin.SI)**; Differential Geometry (math.DG)

Cite as: [arXiv:0912.3697v3](https://arxiv.org/abs/0912.3697v3) [nlin.SI]

Submission history

From: Paolo Lorenzoni [[view email](#)]

[\[v1\]](#) Fri, 18 Dec 2009 15:04:06 GMT (15kb)

[\[v2\]](#) Wed, 13 Jan 2010 10:33:18 GMT (16kb)

[\[v3\]](#) Thu, 14 Jan 2010 12:06:37 GMT (16kb)

[Which authors of this paper are endorsers?](#)

Download:

- [PDF](#)
- [PostScript](#)
- [Other formats](#)

Current browse context:

nlin.SI

[< prev](#) | [next >](#)

[new](#) | [recent](#) | [0912](#)

Change to browse by:

[math](#)

[math.DG](#)

[nlin](#)

References & Citations

- [CiteBase](#)

Bookmark([what is this?](#))

[CiteULike logo](#)

[Connotea logo](#)

[BibSonomy logo](#)

[Mendeley logo](#)

[Facebook logo](#)

[del.icio.us logo](#)

[Digg logo](#)

[Reddit logo](#)