



Mathematics > Differential Geometry

Extrinsic hyperspheres in manifolds with special holonomy

Tillmann Jentsch, Andrei Moroianu, Uwe Semmelmann

(Submitted on 8 Jul 2011 (v1), last revised 13 Dec 2012 (this version, v2))

We describe extrinsic hyperspheres and totally geodesic hypersurfaces in manifolds with special holonomy. In particular we prove the nonexistence of extrinsic hyperspheres in quaternion-Kaehler manifolds. We develop a new approach to extrinsic hyperspheres based on the classification of special Killing forms.

Comments: published version
 Subjects: **Differential Geometry (math.DG)**
 MSC classes: 53C26, 53C35, 53C10, 53C15
 Journal reference: Differential Geometry and its Applications 31 (2013) 104-111
 DOI: [10.1016/j.difgeo.2012.10.003](https://doi.org/10.1016/j.difgeo.2012.10.003)
 Cite as: [arXiv:1107.1603](https://arxiv.org/abs/1107.1603) [math.DG]
 (or [arXiv:1107.1603v2](https://arxiv.org/abs/1107.1603v2) [math.DG] for this version)

Submission history

From: Andrei Moroianu [[view email](#)]
[\[v1\]](#) Fri, 8 Jul 2011 10:53:54 GMT (15kb)
[\[v2\]](#) Thu, 13 Dec 2012 09:00:13 GMT (15kb)

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

Link back to: [arXiv](#), [form interface](#), [contact](#).

Download:

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

Current browse context:

math.DG

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

[new](#) | [recent](#) | [1107](#)

Change to browse by:

[math](#)

References & Citations

- [NASA ADS](#)

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

