

arXiv.org > math > arXiv:1107.0988

Mathematics > Representation Theory

**Categories of unitary** 

Search or Article-id

All papers - Go!

(Help | Advanced search)

## Download:

- PDF
- PostScript
- Other formats

Current browse context: math.RT

< prev | next >

new | recent | 1107

Change to browse by:

math math-ph

Science WISE

## References & Citations • NASA ADS Bookmark(what is this?) Bookmark(what is this?)

Stephane Merigon, Karl-Hermann Neeb, Hadi Salmasian

supergroups and restriction

representations of Banach-Lie

(Submitted on 5 Jul 2011)

functors

We prove that the categories of smooth and analytic unitary representations of Banach--Lie supergroups are well-behaved under restriction functors, in the sense that the restriction of a representation to an integral subsupergroup is well-defined. We also prove that the category of analytic representations is isomorphic to a subcategory of the category of smooth representations. These facts are needed as a crucial first step to a rigorous treatment of the analytic theory of unitary representations of Banach--Lie supergroups. They extend the known results for finite dimensional Lie supergroups. In the infinite dimensional case the proofs require several new ideas. As an application, we give an analytic realization of the oscillator representation of the restricted orthosymplectic Banach--Lie supergroup.

Subjects:	<b>Representation Theory (math.RT)</b> ; Mathematical Physics (math-ph)
MSC classes:	17B65, 22E66
Cite as:	arXiv:1107.0988 [math.RT]
	(or arXiv:1107.0988v1 [math.RT] for this version)

## **Submission history**

From: Hadi Salmasian [view email] [v1] Tue, 5 Jul 2011 20:37:24 GMT (36kb)

Which authors of this paper are endorsers?

Link back to: arXiv, form interface, contact.