

Supersymmetry (in progress)

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November 12, 2017

1 Introduction

I found the usual physics-oriented textbooks not clear enough, and I always like starting from the beginning when studying new knowledge. Therefore I decide to summarize how I study supersymmetry in this note. I hope my past self would enjoy it.

2 Preliminaries

Knowledge of abstract algebra and smooth manifolds is required. Other necessary mathematical concepts will be developed in this section.

2.1 Central simple algebras

2.2 Graded central simple algebras

3 Super Linear Algebra

3.1 Categorical approach

3.2 Free modules

4 Spinors

4.1 Clifford algebra

4.2 Spin group

5 Bibliography

1. Stacks Project
2. Pierre Deligne and John W. Morgan, *Notes on supersymmetry*
3. Pierre Deligne, *Notes on spinors*
4. ...