李群與李代數

Sophus Lie   Wilhelm Killing Elie Cartan   Hermann Wwyl

  (1) 角動量在量子力學中行為如何

  (2) 基本粒子

  (3) 規範場論中的對稱性與不變量

第七章 …

1. Lie group 理論中 李氏積關鍵性的決定了群的無窮小結構(infinitesimal structure of the group) 大域微分幾何 p.112
2. [群表現(Representation)] (數學傳播季刊 36 卷第 4 期)
   3. [Elie Cartan 的故事]
   4. S^0, S^1, S^3 are the only spheres which are also groups(Lie groups)
5. 何謂 E8 李群 ? [A Garrett Lisi]李斯

Topics

1. Galois' Dream
2. E8 Lie group

參考書目

1. [Introduction to Lie Groups and Lie Algebras] Alexander Kirillov Jr.
2. [Foundations of Differentiable Manifolds and Lie Groups] Frank W.Warner
3. [Lectures on Lie Groups] 項武義
4. Lie Groups for Pendestrians---on line
5. [Lie algebras for physicists] Douglas W.Mckenzie [Home]
6. [Lie Groups New Research] Altos B. Canterra
   關於 Clifford algebra 1990 年 David Hestenes(1933~) [Space-Time algebra]認識到 Clifford algebra 及其在量子力學的解釋(電子自旋)
   1965 年 Harry J. Lipkin(1921~) 在[Lie group for Pendestrains]中引用 Clifford algebra
   [Lie group Guide to the Universe]是 Altos B. Canterra 寫的一本小冊子 解釋李代數在 Clifford 代數中的意義
7. [Lie Groups,Differential Equations and geometry] Giovanni Falcone