PHY 680
Topics in Theoretical Physics

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We may find ourselves wishing to adjust the focus as we proceed.

Course Outline

1. **Berry phase, Berry curvature**
2. **Lattice models and exactly solvable examples, LSM theorems.**
3. **QFT and anomalies**
4. **Cobordism and Classification results**
5. **Generalized symmetries**
6. **Additional topics as time permits**

Grading Policy

Presentations. We will do them throughout the semester.

Student Accessibility Support Center Statement

If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact the Student Accessibility Support Center, Stony Brook Union Suite 107, (631) 632–6748, or at sasc@stonybrook.edu. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential. Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and the Student Accessibility Support Center. For procedures and information, see:

`https://ehs.stonybrook.edu/programs/fire-safety/emergency-evacuation/evacuation-guide-disabili`

Academic Integrity Statement

Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instances of academic dishonesty to the Academic Judiciary. For comprehensive information, see:

`http://www.stonybrook.edu/commcms/academic_integrity/index.html`

Critical Incident Management

Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Student Conduct and Community Standards any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Further information about academic matters can be found in the Undergraduate Bulletin, the Undergraduate Class Schedule, and the Faculty–Employee Handbook.