ASPECTS OF YANG-MILLS THEORY: RECOMMENDED READING

J. EVANS

1. Papers

The course is based on the papers:

- M. F. Atiyah and R. Bott "The Yang-Mills equations over Riemann surfaces" Phil. Trans. R. Soc. Lond. A. **308** (1983), 523–615
- K. Uhlenbeck "Connections with L^p-bounds on curvature" Commun. Math. Phys. **83** (1982), 31–42
- S. K. Donaldson "A new proof of a theorem of Narasimhan and Seshadri" J. Diff. Geom. Volume 18, Number 2 (1983), 269–277.
- N. Hitchin "The self-duality equations on a Riemann surface" J. Diff. Geom. Volume 18, Number 2 (1983), 269–277.
- C. T. Simpson "Constructing variations of Hodge structure using Yang-Mills theory and applications to uniformization" J. Amer. Math. Soc., Volume 1, Number 4 (1988), 867–916

2. Books

You might also find the following books useful.

- S. K. Donaldson and P. B. Kronheimer "The geometry of 4-manifolds" OUP (1990)
- S. K. Donaldson "Riemann surfaces" OUP (2011)
- D. Gilbarg and N. S. Trudinger "Elliptic partial differential equations of second order" Springer Comprehensive Studies in Mathematics 224, 2nd Edition (1998)
- M. F. Atiyah "Geometry of Yang-Mills fields" Scuola Normale Superiore Pisa (1979)
- G. Naber "Topology, geometry and gauge fields, Foundations" Springer Texts in Applied Mathematics 25 (1997)
- M. Nakahara "Geometry, topology and physics" IOP Graduate Student Series in Physics (1990)