

### Reading Course in Topos Theory

The following is recommended reading before meeting 3.

7. Heyting algebras. The logic governing subobjects in a presheaf category — Proposition I.8.5 (MacLane Moerdijk, Chapter I.7-8).
8. Quantifiers as adjoints (MacLane Moerdijk, Chapter I.9).
9. Sheaves over a topological space. Recovering the topology from the subobjects of 1 — Proposition II.2.4. (MacLane Moerdijk, Chapter II.1-2).
10. Bundles and sheaves (MacLane Moerdijk, Chapter II.4-6).

### Exercises

See the problems at the end of each chapter of the respective references.

### References

- S. Awodey, *Category Theory*. Oxford University Press 2006.  
J.L. Bell. *Toposes and Local Set Theories*. Oxford University Press 1992.  
J.L. Lambek and P.J. Scott, *Introduction to Higher Order Categorical Logic*. Cambridge University Press 1986.  
S. Mac Lane, *Categories for the Working Mathematician. Second edition*. Springer 1997.  
S. Mac Lane and I. Moerdijk, *Sheaves in Geometry and Logic: A First Introduction to Topos Theory*. Springer 1992.