

# SHEAVES, MANIFOLDS, COHOMOLOGY

IVAN DI LIBERTI AND ANDREA GAGNA

## EXERCISES

*basics*

Wedhorn (☐), (📖). Problem 10.4

Wedhorn (☐). Problem 10.13

*cohomology*

Wedhorn (☐). Problem 10.5

Wedhorn (☐), (📖). Problem 10.8

Wedhorn (☐), (📖). Problem 10.10

*of constant sheaves*

Wedhorn (☐). Problem 11.4

Wedhorn (☐). Problem 11.6 and 11.7

Wedhorn (☐), (📖). Problem 11.8. *Hint.* You can take the book's hint for granted.

*tames the dragon*

Wedhorn (☐), (📖). Problem 10.21

Wedhorn (☐), (📖). Problem 11.9

Farewell (♥).

- *Jacob Lurie.* Bezout's theorem and nonabelian homological algebra.
- *Dominic Joyce.* Algebraic Geometry over  $C^\infty$ -rings.

● pick at least one exercise from each of the yellow groups.

● nothing is mandatory in the brown box.

📖 useful to deepen your understanding. Take your time to solve it. (May not be challenging at all.)

⚠ It's just too hard.

The label **Wedhorn** refers to the book **Manifolds, Sheaves, and Cohomology**, by *Wedhorn*.

Date: November 13, 2021.