Dror Bar-Natan: Classes: 2004-05: Math 1300Y - Topology:

Comments on Hatcher's Book

web version:
http://www.math.toronto.edu/~drorbn/classes/0405/Topology/HatcherComments/HatcherComments.html

No book is perfect, and Hatcher's excellent textbook is no exception. This page will grow to be a list of typos and other mistakes in Hatcher's "Algebraic Topology" book. If you find anything, please let me know (electronic means preferred!), and I'll add your report. At the end of the year I plan to send this page to Hatcher.

The format of the entries below is: (page number; date added to this list (d/m/y); credit; report).

- 56; 3/11/04; Dror Bar-Natan; I don't like Hatcher's treatment of covering spaces. The whole theory of covering spaces can and should be summarized as a single theorem, roughly saying that the category of covering spaces of a given base B is equivalent to the category of right $\pi_1(B)$-sets. What's a better example of a totally faithful functor from topology to algebra? Isn't this the holy grail of algebraic topology (to find such functors)? Why not say that? See our handout "Covering Spaces in One Swoosh".