Comments on Internet resources

Traditional printed publications in mathematics are normally filtered through an editorial reviewing process which checks their accuracy (not perfectly, but for the most part very reliably). Some widely used Internet sources maintain similar standards (for example, most of the sites supported by recognized academic institutions), but others have far more lenient standards, and this fact must be acknowledged. Probably the most important single example is the **Wikipedia** site:

<http://en.wikipedia.org/wiki/Main_Page>

The **Wikipedia** site contains an incredibly large number of articles, with extensive information on a correspondingly vast array of subjects. The articles are written by volunteers, and in most cases they can be edited by anyone with access to the Internet, including some individuals whose views or understanding of a subject may be highly controversial or simply unreliable. This issue has been noted explicitly by **Wikipedia** in its articles on itself, and in particular the following discuss the matter in some detail.

<http://en.wikipedia.org/wiki/Wikipedia>

<http://en.wikipedia.org/wiki/Reliability_of_Wikipedia>

Since a few documents in this directory make references to **Wikipedia** articles, the underlying policies and reasons for doing so deserve to be discussed. First of all, despite the justifiable controversy surrounding the reliability of some online **Wikipedia** articles, the entries for standard, well – established topics in the sciences are generally very reliable, and the ones cited in the course notes were specifically checked for accuracy before they were cited. As such, they are inserted into the documents in this directory as convenient but reliable online alternatives to more traditional library references *strictly on a case by case basis*. Consequently, this usage should not be interpreted as a blanket policy of acceptance for all such articles, even in the "hard" sciences. In general, it is best to think of **Wikipedia** articles as merely first steps in gathering information about a subject and not as substitutes or replacements for more authoritative (printed or electronic) references in term papers or scholarly articles. All statements in **Wikipedia** articles definitely should be checked independently using more authoritative sources.

In any discussion of Internet references, some comments about World Wide Web searches using **Google** (or other search engines) are also appropriate. The extreme popularity and wide use of **Google** searches clearly show their value for all sorts of purposes. Of course, it is important to remember that search engines are designed to make money and that profit motives might affect the results of searches, but usually this is not a problem for topics in the sciences. Most of the time search engines are very reliable at listing the best references first, but this is not always the case, and therefore it is strongly recommended that a user should normally go beyond the first page of **10** search results. As a rule, it is preferable to look at the top **20, 50** or even **100** results.