An Extensive Bibliography on Long Baseline Interferometry

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This article presents an extensive bibliography on the subject of long baseline interferometry, starting from the time of Albert A. Michelson (1890) up to the present time. It contains over 400 references, including areas of long baseline interferometry applications.

Over the past few decades, the subject of long baseline interferometry has grown from a simple concept of an optical device for detecting light fringes to a highly theoretical and sophisticated system assisted by computers and modern electronic components. Interest in this subject is still increasing. The areas of applications are rapidly widening. These include radio astronomy, radio science, geodesy[1], tectonics[2], space navigation, and seismology.

With the above wide applications, it is not surprising that the number of references on the subject is almost inexhaustible. As one searches through the literature, one often wonders which references one should select. The references selected here were considered most relevant to the subject of long baseline interferometry. However, certain papers and texts which have been found helpful in understanding the subject have also been included.

Although there are over four hundred references listed in this bibliography, it is by no means complete. It may, however, be considered one of the most extensive bibliographies on the subject. The bibliography is based on a computer data base search performed by the JPL Library. It is currently stored on the DACONICS computer system at the Laboratory.

[1] A branch of applied mathematics that determines the exact positions of points and the figures and areas of large portions of the earth's surface, the shape and size of the earth, and the variations of terrestrial gravity and magnetism (*Webster's New Collegiate Dictionary*, 1975).

[2] A branch of geology concerned with structure, especially with folding and faulting (ibid.).

In addition to searching through the appropriate references on the subject in the literature, the NASA/RECON computer printouts (the primary and alternate data banks and engineering index from 1962 to April 20, 1978), the INSPEC data base, and a Report Bibliography of the Defense Document Center were utilized. Several references were obtained through private communications with researchers in the field.

One can generally obtain a bibliography on the subject from computer data banks such as those mentioned above, with abstracts and other additional information. However, due to the volume of the data, one is often discouraged from looking through the printouts. With this present bibliography, one should find it much more expeditious and convenient to identify appropriate material. The references are listed alphabetically by the principal authors' names. Papers by the same author are listed chronologically. If an article is published in more than one journal (with the same title and authors), the alternative sources are also noted at the end of the reference. Moreover, those papers which can be obtained from the National Technical Information Service (NTIS) are indicated by the words, "Avail. NTIS." Also, the Defense Document Center's identification numbers should be found useful.

According to the computer data banks mentioned above, over 1800 references have been published on VLBI and its related topics. Clearly, it was impossible to include all the available references in this bibliography. Many excellent papers on the subject have had to be omitted, as have the majority of the papers written on applications of VLBI.

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