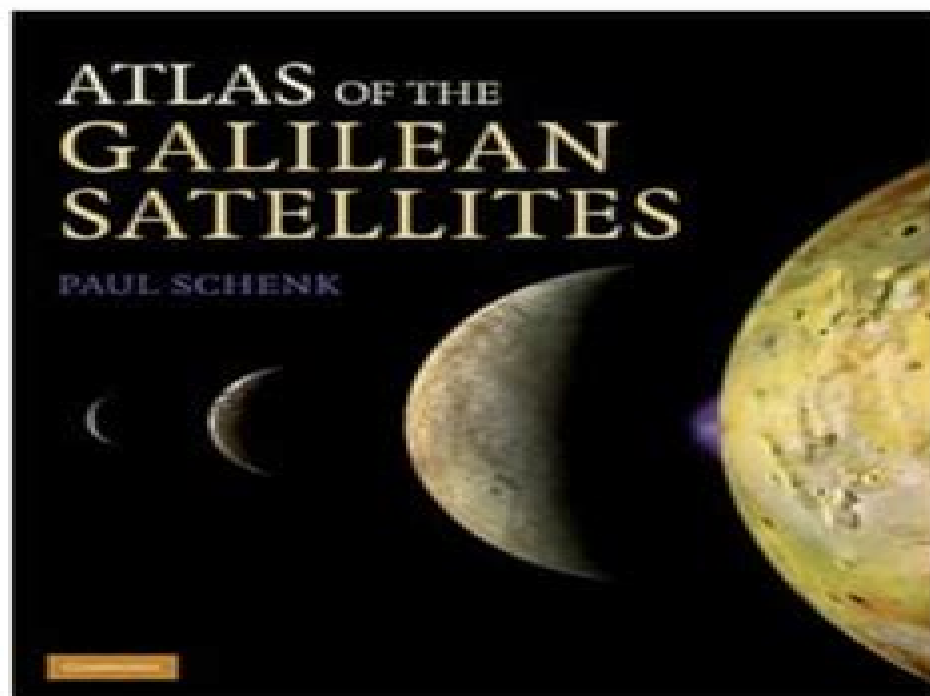


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**Lingsheng Yao**



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*Control Networks For the Galilean Satellites* Rand Corporation, F.Y. Katayama, T.A. Hauge, M.E. Davies, 1976      Control Networks for the Galilean Satellites, November 1979 Merton E. Davies, 1979 First results on the development of the coordinate systems and control networks of the Galilean satellites of Jupiter Pictures of the four satellites were taken as the two Voyager spacecraft approached Jupiter during March and July 1979 and nearly full coverage of the satellites was obtained by each flyby as the satellites rotated in front of the cameras High resolution mosaics of the satellite surfaces were obtained during closest encounter Control nets of the Galilean satellites have been computed photogrammetrically and mean radii measured The pictures in the control nets are identified the coordinates of the control points are given and identifications of some of the control points are shown on figures Improved results will emerge as more data are incorporated in the computations

**Control Networks for the Galilean Satellites: November 1979**, 1979 Pictures of the four Galilean satellites were taken as the two Voyager spacecraft approached Jupiter during March and July 1979 and nearly full coverage of all the satellites was obtained by each flyby as the satellites rotated in front of the cameras High resolution mosaics of the satellites were obtained during the periods of closest encounter The faceplates of the vidicon cameras have réseaux of 202 points to permit removal of geometric distortions Pictures of stars in the Pleiades cluster were used to measure the focal lengths of the optical systems and to calibrate the cameras geometrically Control nets of the Galilean satellites have been computed photo grammatically and mean radii measured This work is continuing and improved results will emerge as more data are incorporated in the computations At this time the mean radii of the satellites are Io 1816 5 km Europa 1563 10 km Ganymede 2638 10 km and Callisto 2410 10 km The control nets contain Io 307 points 159 pictures Europa 86 points 46 pictures Ganymede 227 points 71 pictures and Callisto 291 points 95 pictures The pictures in the control nets are identified the coordinates of the control points are given and identifications of some of the control points are shown on figures      **Reports of Planetary Geology Program - 1980**, 1980      *NASA Technical Memorandum*, 1980

**Scientific and Technical Aerospace Reports**, 1980      **Coordinates of Features on the Galilean Satellites** Merton E. Davies, Frank Y. Katayama, Rand Corporation, 1980 One product of the current exploration of the solar system is the publication of maps of those bodies with solid surfaces These maps show the relative positions of topographic features one to another and are used as bases for correlating a variety of measurements and pictorial data and for regional geologic mapping In order to produce a map of a planetary surface it is necessary to first establish a coordinate system for the body and then to determine the latitudes and longitudes of topographic features in this coordinate system It is the purpose of this paper to define the coordinate systems of each of the Galilean satellites and to present coordinates of features seen in the Voyager pictures of these satellites The two Voyager encounters with Jupiter are described in Smith et al 1979a b A preliminary report on the progress of the control nets of the Galilean satellites was published by Davies et al 1979 Author

**Astrodynamics 1989** ,1990      Reports of Planetary Geology and Geophysics Program, 1988 ,1989      *A Control Network of Triton* Merton E. Davies,1991 A control network for Triton has been computed using a bundle type analytical triangulation program The network contains 105 points that were measured on 57 Voyager 2 pictures The adjustment contained 1 010 observation equations and 382 normal equations and resulted in a standard measurement error of 13 36 micrometers The authors determined coordinates of the control points the camera orientation angles at the times when the pictures were taken and Triton s mean radius A separate statistical analysis confirmed Triton s radius to be 1352 6 plus or minus 2 4 km Attempts to tie the control network around the satellite were unsuccessful because discontinuities exist in high resolution coverage between 66 degrees and 289 degrees longitude north of 38 degrees latitude and south of 78 degrees latitude      *RAOP* ,1980      The Rand Paper Series ,      **National Union Catalog** ,1980 Includes entries for maps and atlases      **Selected Rand Abstracts** Rand Corporation,1986 Includes publications previously listed in the supplements to the Index of selected publications of the Rand Corporation Oct 1962 Feb 1963      *Reports of Planetary Geology Program, 1979-1980* ,1980      **Library of Congress Catalog** Library of Congress,1980-07      **Monographic Series** Library of Congress,      *Voyager* Maryruth Glogowski,1981      **NASA Contractor Report** ,1981      **Subject Catalog, 1980** Library of Congress,1980

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