

TABLE I

The recorded values of the diameters (in km) of Ceres, Pallas, Juno and Vesta as a function of time

Observer/recorder	Date	1 Ceres	2 Pallas	3 Juno	4 Vesta
Herschel	1802	259	235	—	—
Schröter	1811	2613	3380	2290	—
Lamont	—	—	1073	—	—
Mädler	—	—	—	584	467
Stampfer	1856	365	277	180	367
Stone	1867	315	275	200	344
Pickering	1879	—	269	151 ± 7	513 ± 17
Harrington	1883	—	—	—	840
Flammarion	1894	350	270	200	400
Barnard	1895	781 ± 87	490 ± 118	195	390 ± 46
Hamy	1899	—	—	—	390
Barnard	1901	706 ± 84	—	—	347 ± 70
Widorn	P 1967	850	500	—	390
Dollfus*	1967/9	—	921 ± 256	—	435 ± 73
Dollfus	1970	770 ± 40	490 ± 50	200 ± 50	420 ± 35
Dollfus	1971	770	(700)	195	410
Allen	R 1971	1160 ± 80	—	290 ± 20	570 ± 10
Matson	R 1971	1000 ± 100	530 + 100 - 175	—	600 ± 60
Cruikshank	R 1973	1080 ± 80	550 ± 50	250 ± 24	540 ± 40
Morrison	R 1973	1020 ± 100	—	—	580 ± 60
Veverka	P 1973	1220 + 120 - 240	660 ± 110	—	580 + 70 - 90
Bowell	P 1973	1060 ± 130	600 ± 75	—	550 ± 70
Zellner	P 1974	1050	570	222	490
Zellner	P 1976	914	573	233	496
Hansen	R 1976	1173 ± 104	754 ± 34	318	602 ± 51
Hansen	R 1977	1019	597	275	538
Morrison	R 1977a	1018 ± 43	585 ± 57	241	531 ± 15
Zellner	P 1977	957	—	—	558
Morrison	C 1977b	1003	608	247	538
Worden	SI 1979	—	673 ± 55	—	550 ± 23
Schubart	C 1979	987 ± 150	538 ± 50	—	544 ± 80
Bowell	C 1979	1025	583	249	555
Wasserman	O 1979	—	538 ± 12	—	—
Millis	O 1981	—	—	267 ± 5	—
Dunham	O 1983	—	523 ± 5	—	—
Lebofsky	R 1986	936 ± 12	532 ± 7	—	—
Millis	O 1987	932.6 ± 5.2	—	—	—
Tedesco	C 1989	913 ± 43	523 ± 20	244 ± 12	501 ± 24

SI = speckle interferometry, O = occultation, R = radiometric, P = polarimetric, C = combination.

* See Dollfus (1971).

London, 1828), a book for a juvenile audience written as a dialogue between a mother and her two children William and Elizabeth, posed the question “how many planets, then, are there altogether?”. Favouring the large asteroid option, Elizabeth replies, “Eleven: Mercury, Venus, the Earth, Mars, Vesta, Juno, Ceres, Pallas, Jupiter, Saturn, and Herschel”. (The debate as to whether Uranus should be called Georgium Sidus or Herschel, who discovered the planet on 1781 March 13, was still raging.) Figure 1 emphasizes the supposed prominence of four asteroids known at that time.