

Cost of Physics Journals: A Survey

H. H. Barschall and J. R. Arrington
Department of Physics
University of Wisconsin-Madison
Madison, WI 53706

Introduction

We have surveyed physics journals to determine their cost and cost-effectiveness. Similar surveys have recently been carried out for crystallography¹ and optics² journals and earlier for mathematics³.

Scope of Survey

We have limited the survey to journals that publish only physics research, i.e., we omitted journals such as *Nature and Science*, even though these journals may publish some original physics research. We also omitted journals that publish primarily abstracts, such as the *Bulletin of the American Physical Society*, and journals such as *Physics Today*, *Nature*, and *Scientific American*. In deciding which journals to include in the survey we were guided by the listing of the journal under *Physics* in *Ulrich's International Periodicals Directory*⁴. Some journals are omitted because we did not have ready access to them.

Publishers

We listed as publishers the organization listed on the journal. In some cases the journal is owned by an organization other than the publisher. When this was apparent, the owner may also be listed.

Subscription Prices

Subscription prices for 1987 and 1988 are listed in U.S.S. The subscription price is that given in the journal for libraries at academic institutions. Some publishers charge higher rates for non-academic institutional subscriptions. If the price is quoted in a foreign currency, the conversion is based on the exchange rate in January of 1987 for 1987 prices and January 1988 for 1988 prices. Some journals are available at reduced cost, if an institution subscribes to several journals published by the same publisher, but this was not taken into account. In a few cases combination subscriptions greatly reduce the cost per character. When no applicable subscription price was found in a journal, either the price paid by our library or that given in *Ulrich's Directory*⁴ was used. For journals published by Pergamon the prices listed in their price list for the American Continent were used rather than those printed in the journals. For many foreign journals our library paid higher prices than those given in our survey. The differences are partly due to unfavorable exchange rates used by the publishers, partly due to charges by subscription agents.

Some publishers set subscription prices per volume, each volume containing about the same number of pages. If the publisher states the number of volumes to be published in 1988, the listed subscription price is based on this number, otherwise the number of volumes to be published in 1988 was assumed to be the same as in 1987. For some journals the end of a volume does not coincide with the end of the calendar year so that there is an uncertainty in the number of volumes in the year, hence in the annual subscription price. This uncertainty does not affect the determination of the cost per character, since the cost per volume, hence per page is known.

Number of Pages

The number of pages is the total of numbered pages, even if some pages were blank or contained only an index. When there were separately numbered pages (often in roman numerals) giving editorial information or containing advertising, they were not included. For journals for which our library had not received all 1987 issues by April 1, 1988 the number of pages was obtained by extrapolation. Extrapolated numbers are indicated by an asterisk following the number of pages.

For journals for which the end of a volume and the end of a calendar year do not coincide, the number of pages corresponds to the number of volumes on which the listed subscription price is based.

Cost per Character

The cost per 1000 characters is given in U.S. cents. It is based on a count of a few lines of text. The number of characters per page was obtained by multiplying the average number of characters per line by the maximum number of lines on a page that contains no figures, tables, or display mathematics. The 1987 subscription price was divided by the product of the number of pages published in 1987 and the number of characters per page.

Differences in cost of 20 percent are not significant for several reasons: journals follow different practices in numbering pages, in having blank or partially blank pages, in the size of the print used in tables and references. Furthermore, fluctuations in exchange rates introduce uncertainties in dollar prices.

Impact

The impact is taken from the 1986 Science Citation Index⁵. The Index defines the impact of a journal as the average number of citations in 1986 of articles published in that journal in 1984 and 1985.

Cost/Impact

The cost/impact is the ratio of the cost per 1000 characters and the impact. This ratio is perhaps the most significant measure of the cost effectiveness of the journal. The impact number tends to be highest for journals that publish review articles. It also tends to be higher for Letter journals than for regular archival journals. Hence comparisons of the impact are most significant for journals of the same type.

Tables

Table I lists the journals in alphabetic order, their publisher, the 1987 and 1988 academic library subscription prices, and the number of pages published in 1987. The next column is the cost per 1000 characters in U.S. cents. The last two columns give the impact taken from the Citation Index and the cost per thousand characters divided by the impact. For some journals, especially those started in recent years the impact information was not available.

Table II gives the same information for translation journals. They are listed separately because they have a quite different cost basis. The publisher has to pay the translators and has to pay royalties. Very few translation journals (or the journals from which they are translated) are included in the Citation Index. Hence the impact is not given for translation journals.

In Table III the journals are listed in the order of increasing cost/character, and in Table IV they are listed in order of increasing cost/impact.

Conclusions

An analysis of this survey is presented in a companion article in the July 1988 issue of Physics Today.

1. S. C. Abrahams and R. A. Matula, *Acta Cryst.* (in press)
2. B. Meyers, *Optics News*, May 1988 p.21
3. *Notices Am. Math. Soc.* **30**, 715 (1983).
4. *Ulrich's International Periodicals Directory*, R. R. Bowker Co. New York, 1987.
5. *Science Citation Index*, Institute for Scientific Information, Philadelphia, PA 1986.

Table I

Journal Name	Publisher	Price-1987	Price-1988	Pages-1987	Cost/character	Impact	Cost/Impact
Acoustics Lett	Parjon	93	100	208	8.7		
Acta Crystallog Sect A	Int Union Crystall	188	226	1200	2.5	2.0	1.3
Acta Crystallog Sect B	Int Union Crystall	188	226	584	5.2	1.6	3.2
Acta Crystallog Sect C	Int Union Crystall	444	532	2472	2.9	0.75	3.9
Acta Phys Pol A	Polish Sci	144	132	940*	4.0	0.44	9.1
Acta Phys Pol B	Polish Sci	105	105	1200*	2.3	0.55	4.2
Acustica	S. Hirzel	397	389	828	9.1	0.36	25.6
Advances in Phys	Taylor & Francis	300	300	850	8.7	7.0	1.2
Am J Phys	AAPT	130	145	1184	1.5	0.5	2.9
Ann Inst Henri Poincare	Gauthier-Villars	179	222	1100*	5.1	0.47	10.9
Ann Phys (Leipzig)	Johann Ambrosius	68	96	632	2.4	0.33	7.2
Ann Phys (N.Y.)	Academic Press	920	960	3181	8.2	2.7	3.1
Ann Phys (Paris)	Editions Physique	246	273	1108	6.1	0.36	17.0
Appl Opt	OSA	350	425	5414	1.0	1.3	0.77
Appl Phys A	Springer	516	648	1010	8.6	1.7	5.2
Appl Phys B	Springer	425	538	780	9.2	1.3	7.3
Appl Phys Lett	AIP	330	425	4329	1.1	3.5	0.31
Appl Spectrosc	Soc Appl Spec	80	90	1488	0.78	2.2	0.35
Astron Astrophys	Springer	982	1181	6800	1.8	2.1	0.87
Astrophys J	AAS	375	480	12400	0.39	3.7	0.11
Astrophys J Sup Ser	AAS	125	155	2604	0.65	5.6	0.12
Astrophys Space Sci	D. Reidel	1331	1540	4563	8.0	0.62	13.0
Atomic Spectrosc	Perkin-Elmer	28	28	180	2.2		
Can J Phys	NRCC	176	204	1600*	1.4	1.0	1.4
Chem Phys	North-Holland	1545	1889	4905	6.6	2.1	3.2
Classic Quant Grav	IOP	225	480	2058	2.7	1.8	1.5

Table I. (Continued).

Journal Name	Publisher	Price-1987	Price-1988	Pages-1987	Cost/character	Impact	Cost/Impact
Comm Astrophys	Gordon & Breach	148	162	330*	17.4		
Comm At Mol Phys	Gordon & Breach	148	162	356	16.2		
Comm Condens Matt Phys	Gordon & Breach	148	162	330*	17.4		
Comm Nucl Part Phys	Gordon & Breach	148	162	330	17.4		
Comm Plasma Phys	Gordon & Breach	148	162	310*	18.6		
Commun Math Phys	Springer	1466	1947	3500	6.6	2.5	2.6
Comput Phys Commun	North-Holland	634	1080	1348	10.0	0.67	15.0
Comput Phys Rep	North-Holland	395	507	890*	10.0	1.9	5.1
Contemp Phys	Taylor & Francis	184	190	620*	7.2	1.6	4.5
Cryogenics	Butterworths	356	356	728	6.6	0.4	16.7
Cryst Lattice Defects	Gordon & Breach	496	544	791	16.0	0.53	30.0
Czech J Phys	Academia	435	435	1400*	9.1	0.94	9.7
European J Phys	IOP	110	131	322	5.6		
Europhys Lett	EPS	416	500	2784	3.4		
Exp Tech Phys	VEB	75	90	414	4.2		
Ferroelectrics	Gordon & Breach	1740	3480	2970	16.4	0.63	25.9
Few-Body Syst	Springer	289	322	520	14.0		
Fortschr Phys	Akademie Verlag	175	190	859	4.5	1.3	3.4
Found Phys	Plenum	450	475	1224	11.9	0.63	19.0
Fund Cosmic Phys	Gordon & Breach	882	972	1329	25.1		
G Fis	Soc Ital Fisica	29	29	320	2.5		
Gen Relativ Gravit	Plenum	375	395	1298	9.6	0.99	9.8
Geophys Res Lett	AGU	245	262	1270	3.0	2.0	1.5
Helv Phys Acta	Birkhauser	293	324	1100	7.2	0.79	9.2
Hyperfine Interact	Baltzer	1010	1213	2690	11.0	1.1	10.1
IEEE J Quant Electron	IEEE	220	245	2292	1.4	2.7	0.51
IEEE Trans Nucl Soc	IEEE	119	119	1879	0.88	0.73	1.2
IEEE Trans Plasma Sci	IEEE	99	110	780	1.9	1.0	2.0
Infrared Phys	Pergamon	215	245	424	9.6	0.62	15.3
Int J Hydrog Ener	Pergamon	380	435	870*	6.7	0.51	13.0
Int J Infrared Milli	Plenum	245	275	1604	4.8	0.66	7.3
Int J Mass Spectrom	Elsevier	827	781	2200*	11.7	2.3	5.0
Int J Modern Phys A	World Scientific	250	390	1912	3.4		
Int J Theor Phys	Plenum	375	410	1248	9.4	0.52	18.0
J Acoust Soc	AIP/ASA	330	380	5088	0.9	1.1	0.8
Jpn J Appl Phys	Phys Soc Jpn	506	710	4345	1.7	0.42	4.0
J Appl Phys	AIP	580	725	10808	0.76	1.8	0.43
J Chem Phys	AIP	935	1165	14812	0.91	3.3	0.28
J Comput Phys	Academic Press	750	786	3004	6.8	1.1	6.0
J Cryst Growth	North-Holland	1386	1792	3348	8.6	1.7	5.0
J Electron Spectrosc	Elsevier	354	460	1114	8.7	1.7	5.0
J Fluid Mech	Cambridge	760	775	7200	2.6	1.5	1.7
J Fusion Energy	Plenum	125	145	410*	5.8		
J Geometry Phys	Pitagora	80	80	565	4.5		
J Geophys Res A	AGU	314	338	4288	1.1	6.1	0.18
J Low Temp Phys	Plenum	675	715	1810	11.9	1.2	9.8
J Magn Magn Mater	North-Holland	1493	1716	3652	9.0	1.4	6.3
J Magn Reson	Academic Press	620	665	2935	5.4	2.8	1.9
J Math Phys (N.Y.)	AIP	610	760	3042	2.8	1.0	2.8
J Mech Phys Solids	Pergamon	225	250	810*	7.0	0.93	7.6
J Modern Opt	Taylor & Francis	490	590	1625	7.5		
J Mol Spectrosc	Academic Press	684	714	3005	5.8	1.5	4.0
J Non-Cryst Solids	North-Holland	1291	1659	5544	6.9	1.4	5.0
J Non-Equilib Thermody	de Gruyter	238	309	360	18.0	0.33	54.1
J Non-Newtonian Fluids	Elsevier	395	510	1211	10.1	1.1	9.1
J Nucl Mater	North-Holland	1225	1353	2251	9.7	1.1	8.5
J Nucl Sci Tech	Atomic Ener Soc Jpn	150	150	1082	3.1	0.37	8.4
J Opt	Masson	186	186	310*	8.8	0.64	13.8
J Opt Soc Am A	OSA	200	230	2672	1.0	1.4	0.74
J Opt Soc Am B	OSA	200	230	2336	1.2	2.6	0.46
J Phys (Paris)	Editions Phys	361	456	2164	2.8	0.7	3.9
J Phys A: Gen Phys	IOP	620	840	8017	1.8	2.8	0.65

Table I. (Continued).

Journal Name	Publisher	Price-1987	Price-1988	Pages-1987	Cost/character	Impact	Cost/Impact
J Phys B	IOP	715	840	7574	2.2	2.7	0.82
J Phys C	IOP	995	1130	6430	3.1	2.2	1.5
J Phys D	IOP	355	420	1694	3.2	0.93	3.4
J Phys E	IOP	255	290	1548	2.0	0.71	2.9
J Phys F	IOP	510	575	2890	4.1	2.1	2.0
J Phys G	IOP	440	515	1894	5.5	1.5	3.7
J Phys Chem Ref Data	AIP	240	256	1066	3.3	3.0	1.1
J Phys Chem Solids	Pergamon	600	660	1254	7.6	1.0	7.7
J Phys Soc Jpn	Phys Soc Jpn	475	581	4637	2.3	1.7	1.3
J Plasma Phys	Cambridge	410	410	1012	10.7	0.67	15.8
J Quant Spectrosc Radiat	Pergamon	550	605	1100*	9.2	1.0	8.8
J Rheol	Wiley	224	240	834	10.1	0.92	11.0
J Sound Vib	Academic Press	992	1080	4753	4.8	0.64	7.5
J Stat Phys	Plenum	975	1050	4926	6.2	2.4	2.6
J Vac Sci Technol A	AIP/AVS	450	375	3594	1.8	2.1	0.88
J Vac Sci Technol B	AIP/AVS	425	375	1832	3.4	2.9	1.2
Laser Part Beams	Cambridge	150	165	413	8.2	1.1	7.5
Let Math Phys	D. Reidel	192	251	741	6.7	0.66	10.0
Med Phys	AIP/AAPM	170	170	1122	2.2	1.4	1.5
Mod Phys Lett A	World Scientific	250	380	1003	6.9		
Mol Phys	Taylor & Francis	860	945	4217	5.1	2.3	2.2
Nucl Fusion	Int Atomic En Ag	178	218	2200	1.5	2.1	0.69
Nucl Inst Meth A	North-Holland	2640	2805	6290	6.8	0.52	13.0
Nucl Inst Meth B	North-Holland	2112	2181	5032	6.8	1.1	6.4
Nucl Phys A	North-Holland	3000	3885	11370	7.4	2.5	3.0
Nucl Phys B	North-Holland	3000	3885	11370	7.4	4.9	1.5
Nucl Sci Eng	ANS	320	320	1039	5.1	0.55	9.2
Nuovo Cimento A	Soc Ital Fisica	485	508	1600*	9.0	0.58	15.5
Nuovo Cimento B	Soc Ital Fisica	360	377	1400*	7.4	0.53	14.0
Nuovo Cimento D	Soc Ital Fisica	290	304	1500*	5.5	0.57	9.7
Opt Commun	North-Holland	582	758	1899	5.9	1.4	4.3
Opt Lett	OSA	180	200	1077	2.7	2.8	1.0
Opt Quant Electron	Chapman & Hall	245	295	510	10.0	0.61	16.0
Optik (Stuttgart)	Wiss Verlags GMBH	670	931	587	16.8	0.5	33.9
Part Accel	Gordon & Breach	252	276	326	22.0		
Philos Mag A	Taylor & Francis	620	630	1800*	8.3	1.7	5.0
Philos Mag B	Taylor & Francis	620	630	1500*	10.0	2.1	4.7
Philos Trans Roy Soc A	Royal Soc	417	484	1700*	5.7	1.7	3.4
Phys Chem Liq	Gordon & Breach	294	324	332	31.0	0.69	45.0
Phys Fluids	AIP	535	665	3902	1.9	1.9	1.0
Phys Lett A	North-Holland	742	953	3052	4.9	1.1	4.4
Phys Lett B	North-Holland	1978	2542	8370	4.7	3.5	1.3
Phys Rep	North-Holland	1607	2383	5147	6.9	7.0	1.0
Phys Rev A	APS	510	715	11224	0.66	2.4	0.28
Phys Rev B	APS	990	1305	19810	0.72	3.3	0.22
Phys Rev C	APS	365	385	5009	1.1	2.0	0.52
Phys Rev D	APS	550	675	7920	1.0	2.6	0.38
Phys Rev Lett	APS	470	625	5927	1.3	6.5	0.19
Phys Scr	Alden Press	450	700	2544	2.4	1.1	2.1
Phys Status Sol A	Akademie	790	873	5189	3.5	0.61	5.8
Phys Status Sol B	Akademie	789	875	4817	3.8	0.72	5.2
Physica A	North-Holland	845	1267	3840	7.1	0.84	8.5
Physica B & C	North-Holland	986	1087	3024	7.2	1.2	6.2
Physica D	North-Holland	705	1087	2160	7.4	2.2	3.4
Planet Space Sci	Pergamon	485	535	1574	5.2	1.3	4.0
Plasma Phys Controll	IOP/Pergamon	355	410	1734	3.7		
Proc IEEE	IEEE	160	180	1712	1.3	2.1	0.61
Proc Roy Soc London	Royal Soc	402	482	2907	3.9	1.6	2.4
Prog Nucl Mag Res Sp	Pergamon	145	190	624	6.4	7.5	0.85
Prog Quant Electron	Pergamon	135	150	346	9.3	1.9	5.0
Prog Surf Sci	Pergamon	275	330	1114	6.8	3.6	1.9

Table I. (Continued).

Journal Name	Publisher	Price-1987	Price-1988	Pages-1987	Cost/character	Impact	Cost/Impact
Prog Theor Phys	Phys Soc Jpn	380	465	4100*	2.4	1.8	1.4
Radiat Eff	Gordon & Breach	1308	1584	1595	19.6	1.1	17.1
Radiat Phys Chem	Pergamon	410	470	920	6.9	0.61	11.4
Rep Math Phys	Pergamon	215	235	820*	7.8		
Rep Prog Phys	IOP	375	430	1720	5.1	6.7	0.77
Rev Geophys	AGU	265	284	1682	2.1	3.8	0.55
Rev Mexicana De Fis	Soc Mex De Fis	40	40	512	3.3		
Rev Mod Phys	APS	160	170	1360	1.7	27.0	0.063
Rev Sci Instrum	AIP	345	395	2418	2.0	1.1	1.9
Revue Roumaine Phys	Editura Acad	80	80	1000*	2.1		
Rivista Nuovo Cimento	Editrice Compositori	230	240	740*	9.7	0.92	10.5
Sol Phys	D. Reidel	766	862	2476	8.6	1.2	7.1
Solid State Commun	Pergamon	780	860	4389	2.8	1.6	1.7
Solid State Ionics	North-Holland	473	767	1372	6.8	1.0	6.6
Spectrochim Acta A	Pergamon	450	495	1638	4.3	0.91	4.7
Spectrosc Lett	Marcel Dekker	375	375	1019	25.7	1.0	25.2
Surf Sci	North-Holland	2691	3475	11000*	7.4	3.2	2.3
Surf Sci Rep	North-Holland	132	164	385	10.3		
Thin Solid Films	Elsevier Sequoia	1621	2380	3850	10.9	1.1	10.3
Vacuum	Pergamon	205	225	857	3.0	0.86	3.5
Vistas Astron	Pergamon	165	215	380*	9.1		
Wave Motion	North-Holland	202	264	574	7.9	0.77	10.3
Z Naturforsch A	Verlag Zeitschrift	282	285	1500*	3.6	0.82	4.3
Z Phys A	Springer	712	860	1517	8.1	1.6	4.9
Z Phys B	Springer	700	1106	2155	5.6	1.8	3.2
Z Phys C	Springer	1099	1030	2600*	7.2	2.0	3.7
Z Phys D	Springer	516	928	1528	5.8		

Table II

Journal Name	Publisher	Price-1987	Price-1988	Pages-1987	Cost/character
Astrophysics	Plenum	595	645	696	16.0
Chinese Phys	AIP	540	600	1234	8.8
Cosmic Res (USSR)	Plenum	715	795	720*	17.0
Fluid Dynamics	Plenum	710	795	987	13.2
High Temp (USSR)	Plenum	645	795	920	12.4
Instrum Exp Tech (USSR)	Plenum	745	895	1506	8.6
J Appl Mech Tech Phys	Plenum	745	795	935	14.1
J Sov Laser Res	Plenum	275	325	694	7.1
JETP Lett	AIP	420	505	720*	14.4
Moscow Univ Phys Bull	Allerton	380	450	723	11.4
Opt Spectrosc (USSR)	OSA	500	535	1700*	4.0
Radiophys Quant Elec	Plenum	715	795	1200*	11.3
Sol Syst Res (USSR)	Plenum	475	525	210	35.0
Sov J Contemp Phys	Allerton	415	430	408	22.1
Sov J Low Temp Phys	AIP	605	605	758	10.6
Sov J Nucl Phys	AIP	865	1040	2300*	5.1
Sov J Particles Nuclei	AIP	510	535	585	11.6
Sov J Plasma Phys	AIP	645	710	890*	9.6
Sov J Quant Electron	AIP	955	1150	1600*	7.7
Sov Phys Acoust	AIP	410	410	680*	8.1
Sov Phys Dokl	AIP	535	640	1000*	7.0
Sov Phys J	Plenum	715	795	1100*	11.5
Sov Phys JETP	AIP	935	1125	2600	4.8
Sov Phys Solid State	AIP	935	1135	2200*	5.6
Sov Tech Phys Lett	AIP	445	490	636	9.3
Sov Phys Usp	AIP	420	505	1100*	5.2
Theor Math Phys	Plenum	695	775	1300*	9.4

Table III

Journal Name	Publisher	Cost/ character
Astrophys J	AAS	0.39
Astrophys J Sup Ser	AAS	0.65
Phys Rev A	APS	0.66
Phys Rev B	APS	0.72
J Appl Phys	AIP	0.76
Appl Spectrosc	Soc Appl Spec	0.78
IEEE Trans Nucl Soc	IEEE	0.88
J Acoust Soc	AIP/ASA	0.90
J Chem Phys	AIP	0.91
Appl Opt	OSA	1.0
J Opt Soc Am A	OSA	1.0
Phys Rev D	APS	1.0
Appl Phys Lett	AIP	1.1
J Geophys Res A	AGU	1.1
Phys Rev C	APS	1.1
J Opt Soc Am B	OSA	1.2
Phys Rev Lett	APS	1.3
Proc IEEE	IEEE	1.3
IEEE J Quant Electron	IEEE	1.4
Can J Phys	NRCC	1.4
Nucl Fusion	Int Atomic En Ag	1.5
Am J Phys	AAPT	1.5
Rev Mod Phys	APS	1.7
Jpn J Appl Phys	Phys Soc Jpn	1.7
J Phys A: Gen Phys	IOP	1.8
J Vac Sci Technol A	AIP/AVS	1.8
Astron Astrophys	Springer	1.8
Phys Fluids	AIP	1.9
IEEE Trans Plasma Sci	IEEE	1.9
J Phys E	IOP	2.0
Rev Sci Instrum	AIP	2.0
Rev Geophys	AGU	2.1
Revue Roumaine Phys	Edinra Acad	2.1
Med Phys	AIP/AAPM	2.2
Atomic Spectrosc	Perkin-Elmer	2.2
J Phys B	IOP	2.2
J Phys Soc Jpn	Phys Soc Jpn	2.3
Acta Phys Pol B	Polish Sci	2.3
Ann Phys (Leipzig)	Johann Ambrosius	2.4
Phys Scr	Alden Press	2.4
Prog Theor Phys	Phys Soc Jpn	2.4
Acta Crystallog Sect A	Int Union Crystall	2.5
G Fis	Soc Ital Fisica	2.5
J Fluid Mech	Cambridge	2.6
Classic Quant Grav	IOP	2.7
Opt Lett	OSA	2.7
J Phys (Paris)	Editions Phys	2.8
J Math Phys (N.Y.)	AIP	2.8
Solid State Commun	Pergamon	2.8
Acta Crystallog Sect C	Int Union Crystall	2.9
Geophys Res Lett	AGU	3.0
Vacuum	Pergamon	3.0
J Nucl Sci Tech	Atomic Ener Soc Jpn	3.1
J Phys C	IOP	3.1
J Phys D	IOP	3.2
J Phys Chem Ref Data	AIP	3.3
Rev Mexicana De Fis	Soc Mex De Fis	3.3
Europhys Lett	EPS	3.4

Table III. (Continued).

Journal Name	Publisher	Cost/ character
Int J Modern Phys A	World Scientific	3.4
J Vac Sci Technol B	AIP/AVS	3.4
Phys Status Sol A	Akademie	3.5
Z Naturforsch A	Verlag Zeitschrift	3.6
Plasma Phys Controll	IOP/Pergamon	3.7
Phys Status Sol B	Akademie	3.8
Proc Roy Soc London	Royal Soc	3.9
Acta Phys Pol A	Polish Sci	4.0
J Phys F	IOP	4.1
Exp Tech Phys	VEB	4.2
Spectrochim Acta A	Pergamon	4.3
Fortschr Phys	Akademie Verlag	4.5
J Geometry Phys	Pitagora	4.5
Phys Lett B	North-Holland	4.7
Int J Infrared Milli	Plenum	4.8
J Sound Vib	Academic Press	4.8
Phys Lett A	North-Holland	4.9
Mol Phys	Taylor & Francis	5.1
Rep Prog Phys	IOP	5.1
Nucl Sci Eng	ANS	5.1
Ann Inst Henri Poincare	Gauthier-Villars	5.1
Acta Crystallog Sect B	Int Union Crystall	5.2
Planet Space Sci	Pergamon	5.2
J Magn Reson	Academic Press	5.4
J Phys G	IOP	5.5
Nuovo Cimento D	Soc Ital Fisica	5.5
European J Phys	IOP	5.6
Z Phys B	Springer	5.6
Philos Trans Roy Soc A	Royal Soc	5.7
J Fusion Energy	Plenum	5.8
J Mol Spectosc	Academic Press	5.8
Z Phys D	Springer	5.8
Opt Commun	North-Holland	5.9
Ann Phys (Paris)	Editions Physique	6.1
J Stat Phys	Plenum	6.2
Prog Nucl Mag Res Sp	Pergamon	6.4
Cryogenics	Butterworths	6.6
Chem Phys	North-Holland	6.6
Commun Math Phys	Springer	6.6
Int J Hydrog Ener	Pergamon	6.7
Lett Math Phys	D. Reidel	6.7
Prog Surf Sci	Pergamon	6.8
J Comput Phys	Academic Press	6.8
Nucl Inst Meth A	North-Holland	6.8
Nucl Inst Meth B	North-Holland	6.8
Solid State Ionics	North-Holland	6.8
J Non-Cryst Solids	North-Holland	6.9
Mod Phys Lett A	World Scientific	6.9
Phys Rep	North-Holland	6.9
Radiat Phys Chem	Pergamon	6.9
J Mech Phys Solids	Pergamon	7.0
Physica A	North-Holland	7.1
Helv Phys Acta	Birkhauser	7.2
Physica B & C	North-Holland	7.2
Contemp Phys	Taylor & Francis	7.2
Z Phys C	Springer	7.2
Surf Sci	North-Holland	7.4
Nucl Phys A	North-Holland	7.4
Nucl Phys B	North-Holland	7.4

Table III. (Continued).

Journal Name	Publisher	Cost/ character
Physica D	North-Holland	7.4
Nuovo Cimento B	Soc Ital Fisica	7.4
J Modern Opt	Taylor & Francis	7.5
J Phys Chem Solids	Pergamon	7.6
Rep Math Phys	Pergamon	7.8
Wave Motion	North-Holland	7.9
Astrophys Space Sci	D. Reidel	8.0
Z Phys A	Springer	8.1
Ann Phys (N.Y.)	Academic Press	8.2
Laser Part Beams	Cambridge	8.2
Philos Mag A	Taylor & Francis	8.3
J Cryst Growth	North-Holland	8.6
Appl Phys A	Springer	8.6
Sol Phys	D. Reidel	8.6
Advances in Phys	Taylor & Francis	8.7
J Electron Spectrosc	Elsevier	8.7
Acoustics Lett	Parjon	8.7
J Opt	Masson	8.8
J Magn Magn Mater	North-Holland	9.0
Nuovo Cimento A	Soc Ital Fisica	9.0
Acustica	S. Hirzel	9.1
Vistas Astron	Pergamon	9.1
Czech J Phys	Academia	9.1
J Quant Spectrosc Radiat	Pergamon	9.2
Appl Phys B	Springer	9.2
Int J Theor Phys	Plenum	9.4
Gen Relativ Gravit	Plenum	9.6
Infrared Phys	Pergamon	9.6
Prog Quant Electron	Pergamon	9.6
Rivista Nuovo Cimento	Editrice Compositori	9.7
J Nucl Mater	North-Holland	9.7
Comput Phys Commun	North-Holland	10.0
Comput Phys Rep	North-Holland	10.0
Opt Quant Electron	Chapman & Hall	10.0
Philos Mag B	Taylor & Francis	10.0
J Non-Newtonian Fluids	Elsevier	10.1
J Rheol	Wiley	10.1
Surf Sci Rep	North-Holland	10.3
J Plasma Phys	Cambridge	10.7
Thin Solid Films	Elsevier Sequoia	10.9
Hyperfine Interact	Baltzer	11.0
Int J Mass Spectrom	Elsevier	11.7
J Low Temp Phys	Plenum	11.9
Found Phys	Plenum	11.9
Few-Body Syst	Springer	14.0
Cryst Lattice Defects	Gordon & Breach	16.0
Comm At Mol Phys	Gordon & Breach	16.2
Ferroelectrics	Gordon & Breach	16.4
Optik (Stuttgart)	Wiss Verlags GMBH	16.8
Comm Nucl Part Phys	Gordon & Breach	17.4
Comm Astrophys	Gordon & Breach	17.4
Comm Condens Mat Phys	Gordon & Breach	17.4
J Non-Equilib Thermody	de Gruyer	18.0
Comm Plasma Phys	Gordon & Breach	18.6
Radiat Eff	Gordon & Breach	19.6
Part Accel	Gordon & Breach	22.0
Fund Cosmic Phys	Gordon & Breach	25.1
Spectrosc Lett	Marcel Dekker	25.7
Phys Chem Liq	Gordon & Breach	31.0

Table IV

Journal Name	Publisher	Cost/ Impact
Rev Mod Phys	APS	0.063
Astrophys J	AAS	0.11
Astrophys J Sup Ser	AAS	0.12
J Geophys Res A	AGU	0.18
Phys Rev Lett	APS	0.19
Phys Rev B	APS	0.22
J Chem Phys	AIP	0.28
Phys Rev A	APS	0.28
Appl Phys Lett	AIP	0.31
Appl Spectrosc	Soc Appl Spec	0.35
Phys Rev D	APS	0.38
J Appl Phys	AIP	0.43
J Opt Soc Am B	OSA	0.46
IEEE J Quant Electron	IEEE	0.51
Phys Rev C	APS	0.52
Rev Geophys	AGU	0.55
Proc IEEE	IEEE	0.61
J Phys A: Gen Phys	IOP	0.65
Nucl Fusion	Int Atomic En Ag	0.69
J Opt Soc Am A	OSA	0.74
Appl Opt	OSA	0.77
Rep Prog Phys	IOP	0.77
J Acoust Soc	AIP/ASA	0.80
J Phys B	IOP	0.82
Prog Nucl Mag Res Sp	Pergamon	0.85
Astron Astrophys	Springer	0.87
J Vac Sci Technol A	AIP/AVS	0.88
Opt Lett	OSA	1.0
Phys Rep	North-Holland	1.0
Phys Fluids	AIP	1.0
J Phys Chem Ref Data	AIP	1.1
IEEE Trans Nucl Soc	IEEE	1.2
J Vac Sci Technol B	AIP/AVS	1.2
Advances in Phys	Taylor & Francis	1.2
Acta Crystallog Sect A	Int Union Crystall	1.3
Phys Lett B	North-Holland	1.3
J Phys Soc Jpn	Phys Soc Jpn	1.3
Prog Theor Phys	Phys Soc Jpn	1.4
Can J Phys	NRCC	1.4
Classic Quant Grav	IOP	1.5
Geophys Res Lett	AGU	1.5
J Phys C	IOP	1.5
Nucl Phys B	North-Holland	1.5
Med Phys	AIP/AAPM	1.5
J Fluid Mech	Cambridge	1.7
Solid State Commun	Pergamon	1.7
Prog Surf Sci	Pergamon	1.9
J Magn Reson	Academic Press	1.9
Rev Sci Instrum	AIP	1.9
IEEE Trans Plasma Sci	IEEE	2.0
J Phys F	IOP	2.0
Phys Scr	Alden Press	2.1
Mol Phys	Taylor & Francis	2.2
Surf Sci	North-Holland	2.3
Proc Roy Soc London	Royal Soc	2.4
Commun Math Phys	Springer	2.6
J Stat Phys	Plenum	2.6
J Math Phys (N.Y.)	AIP	2.8
Am J Phys	AAPT	2.9
J Phys E	IOP	2.9
Nucl Phys A	North-Holland	3.0

Table IV. (Continued).

Journal Name	Publisher	Cost/ Impact
Ann Phys (N.Y.)	Academic Press	3.1
Acta Crystallog Sect B	Int Union Crystall	3.2
Chem Phys	North-Holland	3.2
Z Phys B	Springer	3.2
Philos Trans Roy Soc A	Royal Soc	3.4
Fortschr Phys	Akademie Verlag	3.4
J Phys D	IOP	3.4
Physica D	North-Holland	3.4
Vacuum	Pergamon	3.5
J Phys G	IOP	3.7
Z Phys C	Springer	3.7
Acta Crystallog Sect C	Int Union Crystall	3.9
J Phys (Paris)	Editions Phys	3.9
J Mol Spectosc	Academic Press	4.0
Jpn J Appl Phys	Phys Soc Jpn	4.0
Planet Space Sci	Pergamon	4.0
Acta Phys Pol B	Polish Sci	4.2
Opt Commun	North-Holland	4.3
Z Naturforsch A	Verlag Zeitschrift	4.3
Phys Lett A	North-Holland	4.4
Contemp Phys	Taylor & Francis	4.5
Spectrochim Acta A	Pergamon	4.7
Philos Mag B	Taylor & Francis	4.7
Z Phys A	Springer	4.9
J Cryst Growth	North-Holland	5.0
J Electron Spectrosc	Elsevier	5.0
J Non-Cryst Solids	North-Holland	5.0
Philos Mag A	Taylor & Francis	5.0
Int J Mass Spectrom	Elsevier	5.0
Prog Quant Electron	Pergamon	5.0
Comput Phys Rep	North-Holland	5.1
Appl Phys A	Springer	5.2
Phys Status Sol B	Akademie	5.2
Phys Status Sol A	Akademie	5.8
J Comput Phys	Academic Press	6.0
Physica B & C	North-Holland	6.2
J Magn Magn Mater	North-Holland	6.3
Nucl Inst Meth B	North-Holland	6.4
Solid State Ionics	North-Holland	6.6
Sol Phys	D. Reidel	7.1
Ann Phys (Leipzig)	Johann Ambrosius	7.2
Appl Phys B	Springer	7.3
Int J Infrared Milli	Plenum	7.3
Laser Part Beams	Cambridge	7.5
J Sound Vib	Academic Press	7.5
J Mech Phys Solids	Pergamon	7.6
J Phys Chem Solids	Pergamon	7.7
J Nucl Sci Tech	Atomic Ener Soc Jpn	8.4
J Nucl Mater	North-Holland	8.5
Physica A	North-Holland	8.5
J Quant Spectrosc Radiat	Pergamon	8.8
Acta Phys Pol A	Polish Sci	9.1
J Non-Newtonian Fluids	Elsevier	9.1
Helv Phys Acta	Birkhauser	9.2
Nucl Sci Eng	ANS	9.2
Czech J Phys	Academia	9.7
Nuovo Cimento D	Soc Ital Fisica	9.7
Gen Relativ Gravit	Plenum	9.8
J Low Temp Phys	Plenum	9.8
Lett Math Phys	D. Reidel	10.0
Hyperfine Interact	Baltzer	10.1

Table IV. (Continued).

Journal Name	Publisher	Cost/ Impact
Thin Solid Films	Elsevier Sequoia	10.3
Wave Motion	North-Holland	10.3
Rivista Nuovo Cimento	Editrice Compositori	10.5
Ann Inst Henri Poincare	Gauthier-Villars	10.9
J Rheol	Wiley	11.0
Radiat Phys Chem	Pergamon	11.4
Astrophys Space Sci	D. Reidel	13.0
Int J Hydrog Ener	Pergamon	13.0
Nucl Inst Meth A	North-Holland	13.0
J Opt	Masson	13.8
Nuovo Cimento B	Soc Ital Fisica	14.0
Comput Phys Commun	North-Holland	15.0
Infrared Phys	Pergamon	15.3
Nuovo Cimento A	Soc Ital Fisica	15.5
J Plasma Phys	Cambridge	15.8
Opt Quant Electron	Chapman & Hall	16.0
Cryogenics	Butterworths	16.7
Ann Phys (Paris)	Editions Physique	17.0
Radiat Eff	Gordon & Breach	17.1
Int J Theor Phys	Plenum	18.0
Found Phys	Plenum	19.0
Spectrosc Lett	Marcel Dekker	25.2
Acustica	S. Hirzel	25.6
Ferroelectrics	Gordon & Breach	25.9
Crysl Lattice Defects	Gordon & Breach	30.0
Optik (Stuttgart)	Wiss Verlags GMBH	33.9
Phys Chem Liq	Gordon & Breach	45.0
J Non-Equilib Thermody	de Gruyter	54.1

HIGHLIGHTS OF THE MEETINGS OF THE APS EXECUTIVE COMMITTEE AND COUNCIL

The APS Executive Committee and Council met on 16–17 April 1988 at the Hyatt Regency Crystal City and the Holiday Inn, Inner Harbor in Baltimore, Maryland.

Executive Committee Meeting—*Members Present:* V. Fitch (presiding), S. Austin, W. W. Havens, Jr., D. Kleppner, J. A. Krumhansl, D. Lazarus, H. Lustig, J. Matthews, K. Patel, S. Wojcicki. *Member Absent:* S. D. Drell.

Council Meeting—*Members Present:* V. Fitch (presiding), S. Austin, D. Bershader, S. Brush, A. Dalgarno, P. M. Dehmer, M. E. Fisher, R. R. Freeman, W. W. Havens, Jr., V. Jaccarino, S. Jackson, A. Kernan, D. Kleppner, J. A. Krumhansl, W. Kunkel, D. Lazarus, H. Lustig, J. Matthews, A. Melissinos, E. Merzbacher, R. Orbach, K. Patel, F. Perkins, R. Ramaty, A. Sessler, R. Simmons, A. Weber, S. Wojcicki. *Members Absent:* S. D. Drell, R. K. Eby, R. Knox, M. Perl. *Advisors Present:* P. D. Adams, M. Forman, J. D. Gavenda, L. C. Hebel, H. Motz, R. Park, J. Sandweiss, B. B. Schwartz, L. W. Seagondollar, E. Sheldon, J. R. Stevenson, and R. J. von Gutfeld.

Council authorized the APS President to send letters in the name of the Council to the candidates for President of

the United States urging attention to the problem of the White House Science Office, in accordance with the statement passed by Council at the 24 January 1988 meeting and published in the April *Bulletin*. It also authorized the President to send letters to appropriate Congressional committees in support of increased funding for the National Science Foundation.

A proposed Bill entitled “The Superconductivity Competitiveness Act of 1988,” requiring government owned or operated laboratories to withhold information from Freedom of Information Act request if that information is commercially valuable has been sent to Congress. Council approved the following statement opposing such constraints:

“The recent discovery of a new class of high-temperature superconductors holds the promise of a major technological revolution. Since the initial breakthrough in Zurich in 1986, advances in this field have taken place at an unprecedented pace. This pace is attributable to the unfettered exchange of new ideas and results between scientists of all nations. Any governmental measures that seek to restrict the flow of information in this field will impede our own progress and invite retaliation by the international scientific community. Such restrictions would not, therefore, be in the best interests of American science, industrial competitiveness, or national security.