The Title Goes Here with Each Initial Letter Capitalized

Author's Name, 1 (a) Author's Name, 1, b) and Another's Name^{2, 3, c)}

организации то нужно оставить только сноску corresponding author

Если все авторы с одной 1) Replace this text with an author's affiliation (use complete addresses, including country name or code). ²⁾Second institution and/or address ³⁾You would list an author's second affiliation (if applicable) here.

a) Corresponding author: first.author@insitution.edu

b) Electronic mail: second.author@institution.edu. c) Electronic mail third author@ another institution edu адресс e-mail оставить только corresponding author

Abstract. An article usually includes an abstract, a concise summary of the work covered at length in the main body of the article. It is used for secondary publications and for information retrieval purposes.

FIRST-LEVEL HEADING: THE LINE BREAK WAS FORCED via \\

This sample document demonstrates proper use of REVTEX 4.1 (and LATEX 2.6) in manuscripts prepared for submission to AIP conference proceedings. Further information can be found in the documentation included in the distribution or available at http://authors.aip.org and in the documentation for REVTEX 4.1 itself.

When commands are referred to in this example file, they are always shown with their required arguments, using normal TFX format. In this format, #1, #2, etc. stand for required author-supplied arguments to commands. For example, in \section{#1} the #1 stands for the title text of the author's section heading, and in \title{#1} the #1 stands for the title text of the paper.

Line breaks in section headings at all levels can be introduced using \\. A blank input line tells TFX that the paragraph has ended.

Second-level heading: Formatting

This file may be formatted in both the preprint (the default) and reprint styles; the latter format may be used to mimic final journal output. Either format may be used for submission purposes. Hence, it is essential that authors check that their manuscripts format acceptably under preprint. Manuscripts submitted to AIP that do not format correctly under the preprint option may be delayed in both the editorial and production processes.

В числовых данных дробная часть отделяется обязательно точкой!!!

Единицы измерения нужно писать так, а не в виде дроби

Third-level heading: Citations and Footnotes

Physical data should be quoted with decimal points and negative exponents (e.g., 25.8 J K⁻¹ mol⁻¹), and arranged as follows where possible: mp/bp 20°C; $[\alpha]D20 = (-13.5)(c = 0.2)$, acetone) (please also give units for $[\alpha]$ and c, usually deg cm³ g⁻¹ dm⁻¹ and g cm⁻³, respectively); Hi NMR (400 MHz, DMSO- d_6 , δ): 7.15 (s, 2H, Ar H), 1.3 (q, J = 8 Hz, 2H; CH₂), 0.9 (t, J = 8 Hz, 3H; CH₃); ¹³C NMR (100 MHz, CDCl₃,): 175.4 (C=O), 156.5 (C4); IR (KBr): v = 2972 (w), 2907 (w), ..., 1026 (s; $v_{as}(SiOSi)$), 971 (v_s), ..., 666 (w; $v_s(SiOSi)$), ..., 439 (m), 401 cm⁻¹

(m); UV-vis (*n*-hexane): $\lambda_{\text{max}}(\varepsilon) = 320$ (5000), 270 nm (12000); EIMS m/z (%): 108 (20) [M⁺], 107 (60) [M⁺ – H], 91 (100) $[C_7H_7^+]$; HRMS (ESI) m/z: $[M + H]^+$ calcd for $C_{21}H_{38}N_4O_6S$, 475.2591; found, 475.2593. Anal. calcd for C₄₅H₂₈N₄O₇: C 62.47, H 3.41, N 6.78; found: C 62.27, H 3.46, N 6.80.

Numbered lists may also be included and should look like this:

A reference within the bibliography is specified with a \bibitem{#1} command, where the argument is the citation key mentioned above. \bibitem{#1} commands may be crafted by hand or, preferably, generated by using BibT_EX. The AIP styles for REVT_EX 4 include BibT_EX style files aipnum.bst and aipauth.bst, appropriate for numbered and author-year bibliographies, respectively. REVTeX 4 will automatically choose the style appropriate for

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MATH AND EQUATIONS

Inline math may be typeset using the \$ delimiters. Bold math symbols may be achieved using the bm package and the \bm{#1} command it supplies. For instance, a bold α can be typeset as $\boldsymbol{\alpha}$ can be typeset as $\boldsymbol{\alpha}$. Fraktur and Blackboard (or open face or double struck) characters should be typeset using the \mathfrak{#1} and \mathbb{#1} commands respectively. Both are supplied by the amssymb package. For example, \mathbf{R} gives \mathbb{R} and \$\mathfrak{G}\$ gives &

In LATEX there are many different ways to display equations, and a few preferred ways are noted below. Displayed math will center by default. Use the class option fleqn to flush equations left.

Below we have numbered single-line equations, the most common kind:

$$\chi_{+}(p) \lesssim [2|\mathbf{p}|(|\mathbf{p}|+p_z)]^{-1/2} \begin{pmatrix} |\mathbf{p}|+p_z\\ px+ip_y \end{pmatrix}, \tag{1}$$

$$\chi_{+}(p) \lesssim [2|\mathbf{p}|(|\mathbf{p}|+p_{z})]^{-1/2} \begin{pmatrix} |\mathbf{p}|+p_{z} \\ px+ip_{y} \end{pmatrix},$$

$$\left\{1 + 234567890abc + 123\alpha\beta\gamma\delta + 1234556\alpha\beta + \frac{1\sum_{b}^{a}}{A^{2}} \right\}.$$
(1)

Note the open one in Eq. (2).

Not all numbered equations will fit within the text width this way. The equation number will move down automatically if it cannot fit on the same line with a one-line equation:

$$\left\{ab12345678abc123456abcdef\alpha\beta\gamma\delta1234556\alpha\beta\frac{1\sum_{b}^{a}}{A^{2}}\right\}(1234567890abcdefghijklmnopqrstuvwxyz123456789)\,. \tag{3}$$

When the \label{#1} command is used [cf. input for Eq. (2)], the equation can be referred to in text without knowing the equation number that TFX will assign to it. Just use \ref{#1}, where #1 is the same name that used in the \label{#1} command.

Unnumbered single-line equations can be typeset using the $\setminus [, \setminus]$ format:

$$g^+g^+ \to g^+g^+g^+g^+ \dots, \ q^+q^+ \to q^+g^+g^+ \dots$$

Multiline equations

Multiline equations are obtained by using the equarray environment. Use the \nonumber command at the end of each line to avoid assigning a number:

$$\mathcal{M} = ig_Z^2 (4E_1 E_2)^{1/2} (l_i^2)^{-1} \delta_{\sigma_1, -\sigma_2} (g_{\sigma_2}^e)^2 \chi_{-\sigma_2} (p_2) \times [\varepsilon_i l_i \varepsilon_i]_{\sigma_1} \chi_{\sigma_1} (p_1), \tag{4}$$

$$\sum |M_g^{\text{viol}}|^2 = g_S^{2n-4}(Q^2) N^{n-2}(N^2 - 1) \times \left(\sum_{i < j}\right) \sum_{\text{perm}} \frac{1}{S_{12}} \frac{1}{S_{12}} \sum_{\tau} c_{\tau}^f.$$
 (5)

TABLE I. This table illustrates left-aligned, centered, and right-aligned columns. Note that REVTEX 4 adjusts the intercolumn spacing so that the table fills the entire width of the text. Table captions are numbered automatically.

Left ^a	Centered ^b	Right
1	2	3
10	20	30
100	200	300

a Note a.

Note: Do not use \label{#1} on a line of a multiline equation if \nonumber is also used on that line. Incorrect cross-referencing will result. Notice the use \text{#1} for using a Roman font within a math environment.

To set a multiline equation without *any* equation numbers, use the \begin{eqnarray*}, \end{eqnarray*} format:

$$\begin{split} \sum |M_g^{\text{viol}}|^2 &= g_S^{2n-4}(Q^2) \ N^{n-2}(N^2-1) \\ &\times \left(\sum_{i < j}\right) \left(\sum_{\text{perm}} \frac{1}{S_{12} S_{23} S_{n1}}\right) \frac{1}{S_{12}} \ . \end{split}$$

To obtain numbers not normally produced by the automatic numbering, use the $\tan{\#1}$ command, where #1 is the desired equation number. For example, to get an equation number of (5.1'),

$$g^+g^+ \to g^+g^+g^+g^+\dots$$
, $g^+g^+ \to g^+g^+g^+\dots$ (5.1')

A few notes on \tag{#1}. \tag{#1} requires amsmath. The \tag{#1} must come before the \label{#1}, if any. The numbering set with \tag{#1} is *transparent* to the automatic numbering in REVTeX; therefore, the number must be known ahead of time, and it must be manually adjusted if other equations are added. \tag{#1} works with both single-line and multiline equations. \tag{#1} should only be used in exceptional case - do not use it to number all equations in a paper.

Enclosing single-line and multiline equations in \begin{subequations} and \end{subequations} will produce a set of equations that are "numbered" with letters, as shown in Eqs. (6a) and (6b) below:

$$\left\{abc123456abcdef\alpha\beta\gamma\delta1234556\alpha\beta\frac{1\sum_{b}^{a}}{A^{2}}\right\},\tag{6a}$$

$$\mathcal{M} = ig_Z^2 (4E_1 E_2)^{1/2} (l_i^2)^{-1} (g_{\sigma_2}^e)^2 \chi_{-\sigma_2}(p_2) \times [\varepsilon_i]_{\sigma_1} \chi_{\sigma_1}(p_1).$$
(6b)

Putting a \label{#1} command right after the \begin{subequations}, allows one to reference all the equations in a subequations environment. For example, the equations in the preceding subequations environment were Eqs. (6).

CROSS-REFERENCING

REVTEX will automatically number sections, equations, figure captions, and tables. In order to reference them in text, use the \label{#1} and \ref{#1} commands. To reference a particular page, use the \pageref{#1} command.

The \label{#1} should appear in a section heading, within an equation, or in a table or figure caption. The \ref{#1} command is used in the text where the citation is to be displayed. Some examples: Section on page 1, Table I, and Fig. 1.

FIGURES AND TABLES

Figures and tables are typically "floats"; LATEX determines their final position via placement rules. LATEX isn't always successful in automatically placing floats where you wish them.

b Note b.

Рисунок ставится сразу после первого упоминания в тексте, ни в коем случае не ставьте в конце текста.

Test Figure

В подрисуночной надписи слово Figure N пишется с заглавной буквы и полужирным шрифтом

FIGURE 1. A figure caption. The figure captions are automatically numbered.

Рисунок может состоят из нескольких картинок каждая из которых маркируется так



FIGURE 1. To format a figure caption use the LaTeX template style: Figure Caption. The text "FIGURE 1." which labels the caption, should be bold and in upper case. If figures have more than one part, each part should be labeled (a), (b), etc. Using a table, as in the above example, helps you control the layout.

Если предложение начинается со слова Figure N, то слово Figure N пишется полностью, в остальных случаях Fig. N !!!

Figures are marked up with the figure environment, the content of which imports the image (\includegraphics) followed by the figure caption (\caption). The argument of the latter command should itself contain a \label command if you wish to refer to your figure with \ref.

Import your image using either the graphics or graphicx packages. Both of these packages define the \includegraphics{#1} command, but they differ in the optional arguments for specifying the orientation, scaling, and translation of the figure. Fig. 1 is an example of this.

The analog of the figure environment is table, which uses the same \caption command. However, you should type your caption command first within the table, instead of last as you did for figure.

The heart of any table is the tabular environment, which represents the table content as a (vertical) sequence of table rows, each containing a (horizontal) sequence of table cells. Cells are separated by the & character; the row terminates with \\. The required argument for the tabular environment specifies how data are displayed in each of the columns. For instance, a column may be centered (c), left-justified (1), right-justified (r), or aligned on a decimal point (d). (Table II illustrates the use of decimal column alignment.)

Extra column-spacing may be be specified as well, although REVTEX 4 sets this spacing so that the columns fill the width of the table. Horizontal rules are typeset using the \hline command. The doubled (or Scotch) rules that appear at the top and bottom of a table can be achieved by enclosing the tabular environment within a ruledtabular environment. Rows whose columns span multiple columns can be typeset using LATEX's \multicolumn{#1}{#2}{#3} command (for example, see the first row of Table III).

В таблице слово Table N пишется с заглавной буквы и полужирным шрифтом

TABLE III. This table demonstrates the use of \multicolumn in rows with entries that span more than one column.

	D	1 4 <i>h</i>	D	O_{4h}^5
Ion	1st alternative	2nd alternative	lst alternative	2nd alternative
K	(2e) + (2f)	(4i)	(2c) + (2d)	(4f)
Mn	$(2g)^{\mathrm{a}}$	(a) + (b) + (c) + (d)	(4e)	(2a) + (2b)
Cl	(a) + (b) + (c) + (d)	$(2g)^{\mathbf{b}}$	$(4e)^{a}$	
He	$(8r)^{a}$	$(4j)^{a}$	$(4g)^{a}$	
Ag		$(4k)^a$		$(4h)^a$

^a The z parameter of these positions is $z \sim \frac{1}{4}$.

^b This is a footnote in a table. It is supposed to set on the full width of the page, just as the caption does.

TABLE IV. A table with more columns still fits properly in a column. Note that several entries share the same footnote. Inspect the LATEX input for this table to see exactly how it is done.

	r_c (Å)	<i>r</i> ₀ (Å)	κr_0		r_c (Å)	<i>r</i> ₀ (Å)	κr_0
Cu	0.800	14.10	2.550	Sna	0.680	1.870	3.700
Ag	0.990	15.90	2.710	Pb ^b	0.450	1.930	3.760
Au	1.150	15.90	2.710	Ca ^c	0.750	2.170	3.560
Mg	0.490	17.60	3.200	Sr^{d}	0.900	2.370	3.720
Zn	0.300	15.20	2.970	Li ^b	0.380	1.730	2.830
Cd	0.530	17.10	3.160	Na ^e	0.760	2.110	3.120
Hg	0.550	17.80	3.220	K ^e	1.120	2.620	3.480
Al	0.230	15.80	3.240	Rb ^c	1.330	2.800	3.590
Ga	0.310	16.70	3.330	Cs^d	1.420	3.030	3.740
In	0.460	18.40	3.500	Ba^e	0.960	2.460	3.780
Tl	0.480	18.90	3.550				

^a Here's the first, from Ref. 1.

TABLE V. First narrow table.

Element Symbol	Element Name
Н	Hydrogen

TABLE VI. Second narrow table, set alongside.

Trial	Time (s)
1	2.42
2	2.46
3	2.41

TABLE VII. Third narrow table, set alongside once again.

Case	Result
A	Pass
В	Fail
C	Pass

The tables in this document illustrate various effects. Lengthy tables may need to break across pages. A simple way to allow this is to specify the [H] float placement on the table environment. Alternatively, using the standard LATEX $2_{\mathcal{E}}$ package longtable gives more control over how tables break and allows headers and footers to be specified for each page of the table. An example of the use of longtable can be found in the file summary.tex that is included with the REVTEX 4 distribution.

There are two methods for setting footnotes within a table (these footnotes will be displayed directly below the table rather than at the bottom of the page or in the bibliography). The easiest and preferred method is just to use the \footnote{#1} command. This will automatically enumerate the footnotes with lowercase roman letters. However, it is sometimes necessary to have multiple entries in the table share the same footnote. In this case, create the footnotes using \footnotemark[#1] and \footnotetext[#1] {#2}. #1 is a numeric value. Each time the same value for #1 is used, the same mark is produced in the table. The \footnotetext[#1] {#2} commands are placed after the tabular environment. Examine the LATEX source and output for Tables I and IV for an illustration.

Sometimes it can be convenient to place multiple narrow figures or tables side-by-side to conserve space and meet any page length requirements for your conference. This can be done using minipage environments within the table or figure environment. Check the LATEX source and output for Tables V, VI, and VII for an example of how to do this. The vertical alignment of the minipages can be adjusted by changing the optional argument to the environment.

All AIP journals require that the initial citation of figures or tables be in numerical order. LATEX's automatic numbering of floats is your friend here: just put each figure environment immediately following its first reference (\ref), as we have done in this example file.

CONCLUSION

In this section we welcome you to include a summary of the end results of your research.

^b Here's the second.

^c Here's the third.

^d Here's the fourth.

e And etc.

ACKNOWLEDGMENTS

We wish to acknowledge the support of the author community in using REVTEX, offering suggestions and encouragement, testing new versions,

REFERENCES

- 1. R. P. Feynman, Phys. Rev. 94, 262 (1954).
- 2. E. Witten, (2001), hep-th/0106109.
- 3. A. Einstein, Yu. Podolsky, and N. Rosen, Phys. Rev. 47, 777 (1935).
- 4. N. D. Birell and P. C. W. Davies, Quantum Fields in Curved Space (Cambridge University Press, 1982).
- 5. G. P. Berman, Jr. and F. M. Izrailev, Jr., "Stability of nonlinear modes," Physica D 88, 445 (1983).
- 6. Automatically placing footnotes into the bibliography requires using BibTeX to compile the bibliography.
- 7. E. B. Davies and L. Parns, "Trapped modes in acoustic waveguides," Q. J. Mech. Appl. Math. 51, 477-492 (1988).
- 8. E. Beutler, "Williams hematology," (McGraw-Hill, New York, 1994) Chap. 7, pp. 654–662, 5th ed.
- D. E. Knuth, "Fundamental algorithms," (Addison-Wesley, Reading, Massachusetts, 1973) Section 1.2, pp. 10–119, 2nd ed., a full INBOOK entry.
- 10. J. S. Smith and G. W. Johnson, Philos. Trans. R. Soc. London, Ser. B 777, 1395 (2005).
- 11. W. J. Smith, T. J. Johnson, and B. G. Miller, "Surface chemistry and preferential crystal orientation on a silicon surface," J. Appl. Phys. (unpublished).
- 12. V. K. Smith, K. Johnson, and M. O. Klein, "Surface chemistry and preferential crystal orientation on a silicon surface," J. Appl. Phys. (submitted).
- 13. U. Ünderwood, N. Ñet, and P. Pot, "Lower bounds for wishful research results," (1988), talk at Fanstord University (A full UNPUBLISHED entry).
- 14. M. P. Johnson, K. L. Miller, and K. Smith, personal communication (2007).
- 15. J. Smith, ed., AIP Conf. Proc., Vol. 841 (2007).
- 16. W. V. Oz and M. Yannakakis, eds., *Proc. Fifteenth Annual*, All ACM Conferences No. 17, ACM (Academic Press, Boston, 1983) a full PROCEEDINGS entry.
- 17. Y. Burstyn, "Proceedings of the 5th International Molecular Beam Epitaxy Conference, Santa Fe, NM," (2004), (unpublished).
- 18. B. Quinn, ed., *Proceedings of the 2003 Particle Accelerator Conference, Portland, OR, 12-16 May 2005* (Wiley, New York, 2001) albeit the conference was held in 2005, it was the 2003 conference, and the proceedings were published in 2001; go figure.
- 19. A. G. Agarwal, "Proceedings of the Fifth Low Temperature Conference, Madison, WI, 1999," Semiconductors 66, 1238 (2001).
- 20. R. Smith, "Hummingbirds are our friends," J. Appl. Phys. (these proceedings) Abstract No. DA-01.
- 21. J. Smith, Proc. SPIE 124, 367 (2007), required title is missing.
- 22. T. Térrific, "An $O(n \log n / \log \log n)$ sorting algorithm," Wishful Research Result 7 (Fanstord University, Computer Science Department, Fanstord, California, 1988) a full TECHREPORT entry.
- 23. J. Nelson, TWI Report 666/1999 (Jan. 1999) required institution missing.
- 24. W. K. Fields, ECE Report No. AL944 (2005) required institution missing.
- 25. Y. M. Zalkins, e-print arXiv:cond-mat/040426 (2008).
- 26. J. Nelson, U.S. Patent No. 5,693,000 (12 Dec. 2005).
- 27. J. K. Nelson, M.S. thesis, New York University (1999).
- 28. É. Masterly, Mastering Thesis Writing, Master's project, Stanford University, English Department (1988), a full MASTERSTHESIS entry.
- 29. S. M. Smith, Ph.D. thesis, Massachusetts Institute of Technology (2003).
- 30. S. R. Kawa and S.-J. Lin, J. Geophys. Res. 108, 4201 (2003), DOI:10.1029/2002JD002268.
- 31. F. P. Phony-Baloney, Fighting Fire with Fire: Festooning French Phrases, PhD dissertation, Fanstord University, Department of French (1988), a full PHDTHESIS entry.
- 32. D. E. Knuth, Seminumerical Algorithms, 2nd ed., The Art of Computer Programming, Vol. 2 (Addison-Wesley, Reading, Massachusetts, 1981) a full BOOK entry.
- 33. J. C. Knvth, "The programming of computer art," Vernier Art Center, Stanford, California (1988), a full BOOKLET entry.
- 34. R. Ballagh and C. Savage, "Bose-einstein condensation: from atomic physics to quantum fluids, proceedings of the 13th physics summer school," (World Scientific, Singapore, 2000) cond-mat/0008070.
- 35. W. Opechowski and R. Guccione, "Introduction to the theory of normal metals," in *Magnetism*, Vol. IIa, edited by G. T. Rado and H. Suhl (Academic Press, New York) p. 105.
- 36. W. Opechowski and R. Guccione, "Introduction to the theory of normal metals," in *Magnetism*, Vol. IIa, edited by G. T. Rado and H. Suhl (Academic Press, New York, 1965) p. 105.
- 37. J. M. Smith, "Molecular dynamics," (Academic, New York, 1980).
- 38. V. E. Zakharov and A. B. Shabat, "Exact theory of two-dimensional self-focusing and one-dimensional self-modulation of waves in nonlinear media," Zh. Eksp. Teor. Fiz. 61, 118–134 (1971), [Sov. Phys. JETP 34, 62 (1972)].
- 39. E. Beutler, in *Williams Hematology*, Vol. 2, edited by E. Beutler, M. A. Lichtman, B. W. Coller, and T. S. Kipps (McGraw-Hill, New York, 1994) 5th ed., Chap. 7, pp. 654–662.
- 40. R. Ballagh and C. Savage, "Bose-einstein condensation: from atomic physics to quantum fluids," in *Proceedings of the 13th Physics Summer School*, edited by C. Savage and M. Das (World Scientific, Singapore, 2000) cond-mat/0008070.
- 41. W. Opechowski and R. Guccione, "Introduction to the theory of normal metals," in *Magnetism*, Vol. IIa, edited by G. T. Rado and H. Suhl (Academic Press, New York, 1965) p. 105.

- 42. J. M. Smith, in Molecular Dynamics, edited by C. Brown (Academic, New York, 1980).
- 43. D. D. Lincoll, "Semigroups of recurrences," in *High Speed Computer and Algorithm Organization*, Fast Computers No. 23, edited by D. J. Lipcoll, D. H. Lawrie, and A. H. Sameh (Academic Press, New York, 1977) 3rd ed., Part 3, pp. 179–183, a full INCOLLECTION entry.
- 44. A. V. Oaho, J. D. Ullman, and M. Yannakakis, "On notions of information transfer in VLSI circuits," in *Proc. Fifteenth Annual ACM*, All ACM Conferences No. 17, edited by W. V. Oz and M. Yannakakis, ACM (Academic Press, Boston, 1983) pp. 133–139, a full INPROCEDINGS entry.
- 45. L. Manmaker, The Definitive Computer Manual, Chips-R-Us, Silicon Valley, silver ed. (1986), a full MANUAL entry.