Template for NRSM Two-Page Summary

(Replace these lines of text with your title.)

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*Abstract*—This electronic document is a “live” template and already has the necessary formatting for your paper (title, text, headings, etc.). You can directly replace the text in this template with your own text if you wish.

Keywords—component; formatting; style; styling; insert (key words)

# Introduction

This MS Word template provides authors with most of the formatting specifications (e.g. margins, column widths, line spacing, text fonts, etc.) needed for preparing electronic versions of their two-page summaries. Please do not alter any of the formatting in this template when you prepare your two-page summary for the USNC-URSI NRSM.

# Preparing Your Paper

Summary papers are limited to ***two pages***. Any submitted paper that exceeds this limit will be rejected. On the other hand, the content of your two-page summary should substantially fill up the entire two pages (please do not make it much shorter than two pages). The page format is two-column, as illustrated here. Do not add any kind of pagination anywhere in the paper. Do not manually number the headings – the template will do that for you. Note that the main text is in 10 point Times New Roman font.

## Headings

Primary section headings within the paper are enumerated by Roman numerals and are centered above the text. Secondary section headings are enumerated by capital letters followed by periods (“A.”, “B.”, etc.) and are flush left above their sections. The first letter of each word is capitalized. Tertiary section headings are enumerated by Arabic numerals followed by a parenthesis. They are indented, run into the text in their sections, and are followed by a colon.

## Abbreviations and Acronyms

Define abbreviations and acronyms the first time they are used in the text, even after they have been defined in the abstract. Abbreviations such as IEEE, SI, MKS, CGS, sc, dc, and rms do not have to be defined. Do not use abbreviations in the title or heads unless they are unavoidable.

## Units

The International System of Units (SI units) is used in IEEE publications. Unit symbols should be used with measured quantities, e.g., 1 mm, but not when unit names are used in text without quantities, e.g., “a few millimeters.” Use a zero before decimal points: “0.25”, not “.25”. Include a space between the number and the unit label when used as a noun. Replace the space with a hyphen when used as an adjective. For example, “The 10-GHz antennas now operate at 9.8 GHz.”. Do not mix complete spellings and abbreviations of units: “Wb/m2” or “webers per square meter”, not “webers/m2”. Spell out units when they appear in text: “. . . a few henries”, not “. . . a few H”.

## Equations

All equations should be labeled in consecutive numerical order. Equation numbers, within parentheses, should be aligned on the right side of the column, as in (1), using a right tab stop. Punctuate equations with commas or periods when they are part of a sentence, as in

 ****** 

Note that the equation is centered using a center tab stop. Be sure that the symbols in your equation have been defined before or immediately following the equation. Use “(1)”, not “Eq. (1)” or “equation (1)”, Note that the usual font for math symbols is Times New Roman italic.

To make your equations more compact, you may use the slash symbol ( / ), the exp function, or appropriate exponents. Use a long dash rather than a hyphen for a minus sign. Using MathType is a good way to have your equations look professional.

## Grammatical Suggestions

* A parenthetical phrase or statement at the end of a sentence is punctuated outside of the closing parenthesis (like this). (An entire parenthetical sentence is punctuated within the parentheses, as shown here.)
* There is no period after the “et” in the Latin abbreviation “et al.”.
* The abbreviation “i.e.” means “that is”, and the abbreviation “e.g.” means “for example”.
* The subscript for the permeability of vacuum **0, and other common scientific constants, is zero with subscript formatting, not a lowercase letter “o”.
* If English is not your native language, please have your summary proofread by a native English speaker!

## Authors and Affiliations

The template is designed so that author affiliations are not repeated each time for multiple authors of the same affiliation. Please keep your affiliations as succinct as possible. The authors names should appear in the order desired by the authors (the usual custom is to order the names according to the contributions of the authors, with authors who have contributed the most coming first in the list). It is recommended that emails for the authors also be included. For companies and other organizations, website addresses of the organizations may be included, if desired.

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## Figures and Tables

####  Positioning Figures and Tables: Placing figures and tables at the top and bottom of columns is preferred, if possible. Large figures and tables may span across both columns. Figure captions should be below the figures, and table captions should appear above the tables. Insert figures and tables after they are cited in the text. Use the abbreviation “Fig. 1”, even at the beginning of a sentence. Table captions are in an 8 point “small caps” font.

Table I. Example of a Table Heading.

| Table Head | Table Column Head |
| --- | --- |
| Table column subhead | Subhead | Subhead |
| copy | More table copya |  |  |

1. A sample of a Table footnote.

Use 8 point Times New Roman for figure captions. For the axis labels, write out the quantity followed by units in parenthesis, if appropriate. For example: “Magnetic Field (A/m)” . If a figure caption does not go across an entire line, then center it. If the figure caption goes across more than one line, then it should be left and right justified (just as the main text is).



Figure 1. The URSI logo (top) and the UNSC-URSI logo (bottom).

##### Acknowledgment

An acknowledgement statement, if applicable, goes here (right before the reference section). This section head is not numbered and is always singular, i.e., never “Acknowledgements”.

##### References

Note that this section head is not numbered. All references should be labeled in consecutive numerical order in the text, as in [1]–[3]. When citing references within the text, refer simply to the reference number enclosed by square brackets, as in [1]. Do not use “Ref. [1]” or “reference [1]” except at the beginning of a sentence: “Reference [1] was the first…” Note that an “en-dash”, not a hyphen, should be used between numbers to indicate a range of numbers. The same for page numbers: For example, write “pp. 1–4”, not “pp. 1-4”. Note the space between “pp.” and the page numbers.

A numbered list of references must be provided at the end of the paper. The list should be arranged in the order of citation in text, not in alphabetical order. Each reference should be given a unique reference number. Do not list references that are not cited in the text. Include all of the author names on a paper in the reference list; do not use “et al.” (unless there are more than five authors). Papers that have not been published, even if they have been submitted for publication, are cited as “unpublished”. Papers that have been accepted for publication are cited as “in press”.

Capitalize only the first word in a paper title, except for proper nouns and element symbols (i.e., use “sentence case”). An example is shown in [1] below. The name of the journal should be in title case and in italics. For book titles, capitalize each main word of the title (i.e., use “title case”). Also, book titles should be put in italics. An example is shown in [2] below. For a conference article, follow the style indicated below in [3] and [4], in which the name of the conference is in title case and in italics.

Note that the IEEE AP-S Intl. Symposium on Antennas and Propagation and the USNC-URSI Radio Science Meeting are two separate conferences, although they meet together. When this joint meeting is held in Canada, the URSI meeting is usually called the “North American Radio Science Meeting” (the words “North American” are added in the title). Also, note that the USNC-URSI National Radio Science Meeting (with the word “National” in the title) is the meeting that takes place in Boulder, CO, USA. Please make sure that you are citing the appropriate conference.

1. G. Eason, B. Noble, and I. N. Sneddon, “On certain integrals of Lipschitz-Hankel type involving products of Bessel functions,” *Phil. Trans. Roy. Soc. London*, vol. A247, pp. 529–551, April 1955.
2. J. Clerk Maxwell, *A Treatise on Electricity and Magnetism*, 3rd ed., vol. 2. Oxford: Clarendon, 1892, pp.68–73.
3. M. Faraday and H. Hertz, “Radiation characteristics of antennas,” in *Proc. Int. Symp. Antennas Propag.,* Toronto, ON, Canada, Jul. 2010, pp. 1–4.
4. M. Faraday and H. Hertz, “More radiation characteristics of antennas,” in *Proc. USNC-URSI Radio Science Meeting,* Chicago, IL, Jul. 2012, p. 1.