THE TITLE OF THE ARTICLE*

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Please limit the abstract to 100–150 words. We study the effects of warm water on the local penguin population. The major finding is that it is extremely difficult to induce penguins to drink warm water. The success factor is approximately $-e^{-i\pi} - 1$.

*Note of acknowledgement.

I. Sample Mathematics and Text

Notes[1] are numbered sequentially throughout the article, beginning with the first page of the article, and appear at the bottom of each page. Footnote numbers are superscripted in the text and full size in the notes, with paragraphs indented.

The shell uses author-date citations, as seen here [Jones and Miller 2003] and in these additional references [Smith 2001] or [Miller and Smith 2006, p. 100]. The author-date information is based on the labels the author creates for the references. The list of references, which appears on a separate page, is created manually[2] by the author.

As a subsequent section shows, section headings are centered and preceded by a roman numeral. Subheadings are flush left, italicized, and preceded by a capital letters: i.e., III.A. Equation numbers are flush left and enclosed in parentheses.

This short sample document illustrates the typeset appearance of in-line and displayed mathematics in documents. It also illustrates five levels of section headings and three kinds of lists. Finally, the document includes entries for a manual bibliography and an appendix.

I.A. In-line and Displayed Mathematics

The expression $\sum_{i=1}^{\infty} a_i$ is in-line mathematics, while the numbered equation

$$\sum_{i=1}^{\infty} a_i \tag{1}$$

is displayed and automatically numbered as equation (1).

1. This is a footnote.
2. This is another footnote. This longer footnote contains much more information than the first one, so it extends to another line.

Let H be a Hilbert space, C be a closed bounded convex subset of H, T a nonexpansive self map of C. Suppose that as $n \to \infty$, $a_{n,k} \to 0$ for each k, and $\gamma_n = \sum_{k=0}^{\infty} (a_{n,k+1} - a_{n,k})^+ \to 0$. Then for each x in C, $A_n x = \sum_{k=0}^{\infty} a_{n,k} T^k x$ converges weakly to a fixed point of T [**?**].

Two sets of LaTeX parameters govern mathematical displays.[3] The spacing above and below a display depends on whether the lines above or below are short or long, as shown in the following examples.

A short line above:

$$x^2 + y^2 = z^2$$

and a short line below.

A long line above may depend on your margins

$$\sin^2 \theta + \cos^2 \theta = 1$$

as will a long line below. This line is long enough to illustrate the spacing for mathematical displays, regardless of the margins.

I.B. Mathematics in Section Heads $\int_{\alpha}^{\beta} \ln t dt$

Mathematics can appear in section heads. Note that mathematics in section heads may cause difficulties in typesetting styles with running headers or table of contents entries.

I.C. Theorems, Lemmata, and Other Theorem-like Environments

Many theorem-like environments are available. This lemma is a well-known fact on differentiation of asymptotic expansions of analytic functions.

3. LaTeX automatically selects the spacing depending on the surrounding line lengths.

LEMMA 1. Let $f(z)$ be an analytic function in $\mathbb{C}_+$. If $f(z)$ admits the representation

$$f(z) = a_0 + \frac{a_1}{z} + o\left(\frac{1}{z}\right),$$

for $z \to \infty$ inside a cone $\Gamma_\varepsilon = \{z \in \mathbb{C}_+ : 0 < \varepsilon \le \arg z \le \pi - \varepsilon\}$ then

$$a_1 = -\lim z^2 f'(z),\ z \to \infty,\ z \in \Gamma_\varepsilon. \tag{2}$$

*Proof.*Change z for $1/z$. Then $\Gamma_\varepsilon \to \overline{\Gamma}_\varepsilon = \{z \in \mathbb{C}_- : \overline{z} \in \Gamma_\varepsilon\}$ and

$$f(1/z) = a_0 + a_1 z + o(z). \tag{3}$$

Fix $z \in \overline{\Gamma}_\varepsilon$, and let $C_r(z) = \{\lambda \in \mathbb{C}_- : |\lambda - z| = r\}$ be a circle with radius $r = |z| \sin \varepsilon/2$. It follows from (3) that

$$\frac{1}{2\pi i}\int_{C_r(z)} \frac{f(\lambda)\, d\lambda}{(\lambda - z)^2} = \sum_{m=0}^{1} a_m \frac{1}{2\pi i}\int_{C_r(z)} \frac{(\lambda - z_0)^m\, d\lambda}{(\lambda - z)^2} + R(z), \tag{4}$$

where for the remainder $R(z)$ we have

$$\begin{aligned} |R(z)| &\le r^{-1} \max_{\lambda \in C_r(z)} o(|z|) = r^{-1} \max_{\lambda \in C_r(z)} |\lambda| \cdot O(|z| + r) \\ &= \frac{|z| + r}{r} \cdot O(|z| + r) = \frac{1 + \sin \varepsilon}{\sin \varepsilon} \cdot O(|z|). \end{aligned}$$

Therefore $R(z) \to 0$ as $z \to \infty$, $z \in \overline{\Gamma}_{\varepsilon/2}$, and hence by the Cauchy theorem (4) implies

$$\frac{d}{dz} f(1/z) = a_1 + R(z) \to a_1, \text{ as } z \to \infty,\ z \in \overline{\Gamma}_{\varepsilon/2},$$

that implies (2) by substituting $1/z$ back for z. ■

II. Section Headings

Use the Section tag for major sections, such as the one just above. Four additional heading levels are available, as described below.

II.A. Subsection Heading

This text appears under a subsection heading.

II.B. List Environments

You can create numbered, bulleted, and description lists using the Item Tag popup list on the Tag toolbar.

1. List item 1
2. List item 2
    (a) A list item under a list item.
    (b) Just another list item under a list item.
        i. Third level list item under a list item.
            A. Fourth and final level of list items allowed.

- Bullet item 1
- Bullet item 2
    – Second level bullet item.
        * Third level bullet item.
            · Fourth (and final) level bullet item.

III. About the Bibliography

Following the text of this article is a short manual bibliography. This sample bibliography has no relationship to the previous text.

References

Smith, Frank, "Title of Article," *Quarterly Journal of Economics,* CXVI (19xx), 130–159.

Smith, Dean, *A Primer on Economics* (Austin, TX: 2006).

Jones, Robert, and Dean Miller, "Title of Article," *An Economics Journal,* CXVIII (20xx), 100–129.

Jones, Robert, and Dean Miller, "Title of Another Article," *A Famous Economics Journal,* CX (20xx), 1–75.

Miller, Frank, and Robert Smith, "A New Theory of Economics," Harvard University Working Paper No. 1006, 2006.

An Appendix

Because appendices may contain material that is supplementary rather than integral to the main text , many styles use a different numbering system for equations that appear in the appendices.

$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \tag{5}$$

The quadratic equation shown as equation (5) is used to demonstrate how equations are numbered in the appendix.

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