Sample LaTeX Source File

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Abstract. This paper will illustrate how to use the tjm.sty file with your LaTeX source file.

1. Introduction

1.1. Case 1. When you do not need equation numbers, you can write

$$E_z(a) \geq \int_0^1 \hat{\omega}_t(a)dt.$$

1.2. Case 2. When you need equation numbers, you can write

$$E_z(a) = \int_0^1 \hat{\omega}_t(a)dt. \tag{1}$$

1.3. Case 3. When there are several equations,

$$\begin{aligned} \frac{d\theta}{dh} &= \frac{1}{(1+h)\tan\gamma}, \\ \frac{du}{dh} &= -\frac{2}{(1+h)^2} - \frac{B\left(1+\lambda^2\right)ue^{-h/\varepsilon}}{\varepsilon E^* \sin\gamma}, \\ \frac{du}{dh} &\leq \left\{\frac{1}{(1+h)} - \frac{1}{u(1+h)^2}\right\}\frac{1}{\tan\gamma} + \frac{B\lambda e^{-h/\varepsilon}}{\varepsilon\sin\gamma}. \end{aligned} \tag{2}$$

2. Theorems

Theorem, Proposition, Definition, Lemma etc. are written in small capitals.

THEOREM 1. *This might be followed by a series of equations*

$$P_x(X \in A \,|\, \tau > \tau_y) \geq P_x(X \in A, \tau > \tau_y > s)/P_x(\tau > \tau_y)$$

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$$= E_x g(\frac{P_{X(s)}(\tau > \tau_y)}{P_x(\tau > \tau_y)}, (\tau_y \wedge \tau) > s, X \in A)\,.$$

LEMMA 1. *Let $x > 0$ and $\theta > 0$.*

(*a*) *If X is in Class* I, *then*

$$\lim_{t\to\infty} t^{3/2}(e^{-\theta X(t)}, \tau > t) = \frac{c_1}{\sqrt{2\pi\phi''(\alpha)}}\, U(x) \int_0^\infty e^{-\theta z} U(z) dz\,.$$

(*b*) *If X is in Class* III, *then*

$$\lim_{t\to\infty} t^{3/2}(e^{-\theta X(t)}, \tau > t) = \frac{c_1 r}{\sqrt{2\pi\phi''(\alpha)}}\, U(x) \sum_{j\in r\mathbf{N}} e^{-\theta(j+l(x))} U(j)\,.$$

Here $c_1 = \exp\{\int_0^\infty (e^{-t} - 1)t^{-1}(X_t = 0)dt\}$ and $l(x) = x - rk$ if $r(k-1) < x \leq rk$, $k \in \mathbf{N}$. In addition, we can replace $\tau, X, U(x)$ by their duals.

3. Tables

Tables should be produced in the following way:

First	Second	Third
11	22	33
111	222	333

TABLE 1. (captions like this are optional)

4. Pictures

Pictures should be in EPS format. Here is an example.

FIGURE 1. (captions like this are optional)

5. Text

You must use the "return" command (not \\) to start a new paragraph, in order to produce the correct indentation.

Paragraphs should be separated by blank lines.

References [1], [2], and [3] below are samples of three different types.

ACKNOWLEDGMENT. Your acknowledgments go here if necessary.

References

[1] S. C. COUTINHO, *A Primer of Algebraic D-Modules*, LMS Student Texts 33, Cambridge Univ. Press, 1995.

[2] A. HAEFLIGER, Local theory of meromorphic connections in dimension one (Fuchs theory), *Algebraic D-modules*, eds. A. Borel et al, Perspectives in Math. 2, Academic Press, 1987, 129–149.

[3] V. E. ZAKHAROV, A. B. SHABAT, Integration of non-linear equations of mathematical physics by the inverse scattering method II, Funct. Anal. Appl. **13** (1979), 166–174.

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