Sample $\LaTeX$ document

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Abstract

This is a great paper. Read no further, because I don't want you to hurt yourself, but if you can't help yourself, better strap in. It gets bumpy from here on in.

1 Introduction

The results which follow will dwarf all others that have come before. It amazes me that I have been able to write them down. I know that you too will be duely impressed.

2 Preliminaries

What! You don't know what I'm talking about!!

Let's try a little fraktur $\mathfrak{ABC}$. Let's try a little black board bold $\mathbb{Z}, \mathbb{P}, \mathbb{Q}, \mathbb{R}, \mathbb{C}$. Let's try some other symbols like $x \gg 0$ or $\otimes$. How about $M \otimes_{\mathbb{Z}} N$ or $\mathbb{Z}^{\mathbb{Z}^{\mathbb{Z}}}$?

How about $p \nmid N$ or $\boxplus$?

3 Some sample mathematical expressions

Here we have some displayed and aligned equations.

Here is an unnumbered displayed equation:

$$T(m)T(n) = \sum_{d|(m,n)} d^{k-1}\chi(d)T(mn/d^2).$$

Here is a numbered displayed equation:

$$T(m)T(n) = \sum_{d|(m,n)} d^{k-1}\chi(d)T(mn/d^2). \tag{1}$$

Here is the same expression, but inline and not displayed. Notice it is set smaller and the summation indeices are placed differently: $T(m)T(n) = \sum_{d|(m,n)} d^{k-1}\chi(d)T(mn/d^2)$. Note I need to use \$ to surround my formula when in an inline mode.

For an aligned display we have

$$\begin{aligned}
\Lambda_N(s;f) &= \left(\frac{2\pi}{\sqrt{N}}\right)^{-s} \Gamma(s)L(s;f) \\
\Lambda_M(s;g) &= \left(\frac{2\pi}{\sqrt{M}}\right)^{-s} \Gamma(s)L(s;g)
\end{aligned}$$

A numbered version is given by

$$\Lambda_N(s;f) = \left(\frac{2\pi}{\sqrt{N}}\right)^{-s} \Gamma(s)L(s;f) \tag{2}$$

$$\Lambda_M(s;g) = \left(\frac{2\pi}{\sqrt{M}}\right)^{-s} \Gamma(s)L(s;g) \tag{3}$$

A version with only one number associated to the group of equations is given by

$$\begin{aligned}
\Lambda_N(s;f) &= \left(\frac{2\pi}{\sqrt{N}}\right)^{-s} \Gamma(s)L(s;f) \\
\Lambda_M(s;g) &= \left(\frac{2\pi}{\sqrt{M}}\right)^{-s} \Gamma(s)L(s;g)
\end{aligned} \tag{4}$$

Something with cases

$$\phi_p(s) = \begin{cases} \left(\frac{1-b(p)p^{-s}+\psi(p)p^{k-1-2s}}{1-a(p)p^{-s}+\chi(p)p^{k-1-2s}}\right) & \text{if } p \mid L \\ 1 & \text{if } p \nmid L. \end{cases}$$

Let's get the other references in now. See [1] and [2].

References

[1] B. Cipra, On the Niwa-Shintani Theta-Kernel Lifting of Modular Forms, *Nagoya Math. J.*, **91**, (1983), 49–117.

[2] N. Koblitz, "Introduction to Elliptic Curves and Modular Forms", Springer-Verlag, New York, 1984.

[3] J.-P. Serre and H. Stark, Modular Forms of Weight 1/2, In Lecture Notes in Math. **627**, Springer-Verlag, Berlin and New York, (1977), 27–67.