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**Topology Proceedings**

# TOPOLOGY PROCEEDINGS
# EXAMPLE FOR THE AUTHORS

AUTHOR ONE

Abstract. This paper contains a sample article in the Topology Proceedings format. The article includes two examples of figures with EPS graphics.

## 1. Introduction

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## 2. Including Figures

This version of the article includes two examples of figures with EPS graphics. Figure 1 shows how to include an EPS graphic in the figure environment. Figure 2 shows how to add LaTeX lettering and symbols to a graphic. Please see the source file for more information about the figures.

When including graphics please use the following guidelines:
• We should be able to process your source files either by latex and then by a dvi-to-pdf converter (like dvipdfm), or by pdflatex.

2010 *Mathematics Subject Classification.* Primary 54X10, 58Y30, 18D35; Secondary 55Z10.

*Key words and phrases.* Some objects, some conditions.

ALL references are real and correct; ALL citations are imaginary.

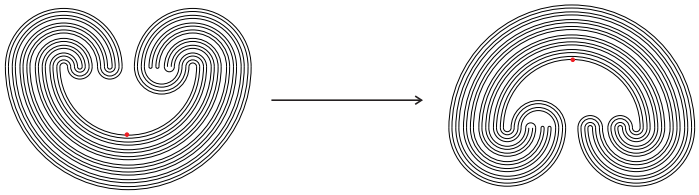

FIGURE 1. An EPS Picture Example.

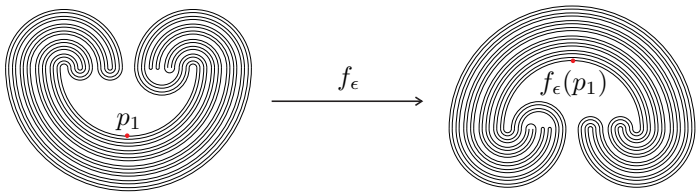


FIGURE 2. A Picture with LaTeX Lettering.

• Put your graphics in the figure environment and let them float (be positioned automatically within the paper, LaTeX default).
• Your figures cannot be wider than the standard text width in the paper.
• Whenever possible, use vector graphics ("drawings" with objects geometrically defined). If bitmap graphics must be used (for example, if a photograph is included), please make sure that the resolution is high enough to look good when printed on a 600 dpi black and white printer.
• If your figure contains lettering, its fonts, sizes, and styles must match those of the body of the articles. This is especially important for all math lettering and symbols. It is usually easier to achieve the proper LaTeX standard if the lettering is added in LaTeX; see Figure 2 for an example.
• Color may be used in graphics, but the figures should also be readable when printed on a 600 dpi black and white printer. (The print version of TOPOLOGY PROCEEDINGS is in black and white only, while the electronic version will show color if used.)

## 3. Main Results

Let $\mathcal{S}$ denote the set of objects satisfying some condition.

**Definition 3.1.** Let $n$ be a positive integer. An object has the property $P(n)$ if some additional condition involving the integer $n$ is satisfied. We will denote by $S_n$ the set of all $s$ in $\mathcal{S}$ with the property $P(n)$.

The following proposition is a simple consequence of the definition.

**Proposition 3.2.** *The sets $S_1, S_2, \ldots$ are mutually exclusive.*

**Lemma 3.3.** *If $\mathcal{S}$ is infinite, then $\mathcal{S} = \bigcup_{n=1}^{\infty} S_n$.*

*Proof.* Since $\mathcal{S}$ is the set of objects satisfying some condition, it follows from [1] that

$$\operatorname{obj}(\mathcal{S}) < 1. \tag{3.1}$$

By [3, Theorem 3.17], we have

$$\operatorname{obj}(S_n) > 2^{-n}$$

for each positive integer $n$. This result, combined with (3.1) and Proposition 3.2, completes the proof of the lemma. □

**Theorem 3.4** (Main Theorem)**.** *Let $f : \mathcal{S} \to \mathcal{S}$ be a function such that $f(S_n) \subset S_{n+1}$ for each positive integer $n$. Then the following conditions are equivalent.*

(1) $\mathcal{S} = \emptyset$.
(2) $S_n = \emptyset$ *for each positive integer* $n$.
(3) $f(\mathcal{S}) = \mathcal{S}$.

**Remark 3.5.** Observe that the condition in the definition of $\mathcal{S}$ may be replaced by some other condition.

## References


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