ACTA MATHEMATICA SPALATENSIA

Example of a title of an article

First Author, Second Author, Third Author

Abstract

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetuer id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.

Keywords:
Math. Subj. Class.:

1 This is a numbered first-level section head

This is an example of a numbered first-level heading.

1.1 This is a numbered second-level section head

This is an example of a numbered second-level heading.

This is an unnumbered second-level section head

This is an example of an unnumbered second-level heading.

These are examples of definitions.

Definition 1. *Let X be some set and $\mathcal{T} \subseteq \mathcal{P}(X)$ such that:*

(T1) $\emptyset, X \in \mathcal{T}$;

(T2) *for every* $U, V \in \mathcal{T}$ *is* $U \cap V \in \mathcal{T}$;

(T3) *for every set* $\mathcal{U} \subseteq \mathcal{T}$ *is* $\bigcup \mathcal{U} \in \mathcal{T}$.

We say that $(X, \mathcal{T})$ is a topological space and $\mathcal{T}$ is topology on the set X.

Definition 2. *Let X be topological space and (x_n) sequence in X. We say that (x_n) converge to the point $x_0 \in X$ in space X if*

$$(\forall V \in \mathcal{N}(x_0))\,(\exists n_0 \in \mathbb{N})\,(\forall n \in \mathbb{N})\,(n \geq n_0 \longrightarrow x_n \in V)\ . \tag{1}$$

Example 3. *If X is a set and*

$$\mathcal{K} = \{Y : Y \subseteq X \ \wedge \ \mathrm{card}\,(Y) < \aleph_0\} \cup \{\emptyset\}\,,$$

then $\mathcal{K}$ is a topology on the set X. We call $\mathcal{K}$ cofinite topology on the set X.

This is an example of a theorem.

Theorem 4. *Every metrizable space is separable if and only if is second countable.*

This is an example of a theorem with a parenthetical note in the heading.

Theorem 5 (Tietze teorem)**.** *Let X be normal space, $A \subseteq X$ closed subset of X and $f : A \to [0,1]$ continous map. Then there exists a continous map $F : X \to [0,1]$ such that $F|_A = f$.*

This is an example of a proposition.

Proposition 6. *Every metrizable space is normal.*

This is an example of a lemma.

Lemma 7. *Every subspace of metrizable separable space is separable.*

This is an example of a proof.

Proof. Let X be some metrizable separable space and $Y \subseteq X$ some subspace of X. Space X is second countable (Theorem 4). Let $\mathcal{B}$ be some countable or finite base of X. It is easy to see that $\mathcal{B}_Y = \{B \cap Y : B \in \mathcal{B}\}$ is countable or finite base of Y. We proved that Y is second countable, which proves that Y is separable. □

This is an example of a remark.

Remark 8. *In further text we will consider only metrizable spaces.*

This is an example of a cite. See [5].

2 Examples of figures

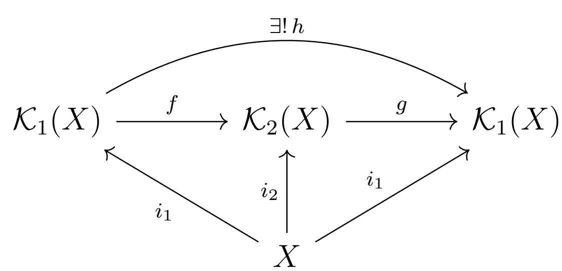

Figure 1: This is an example of a commutative diagram in the package *tikz-cd*.

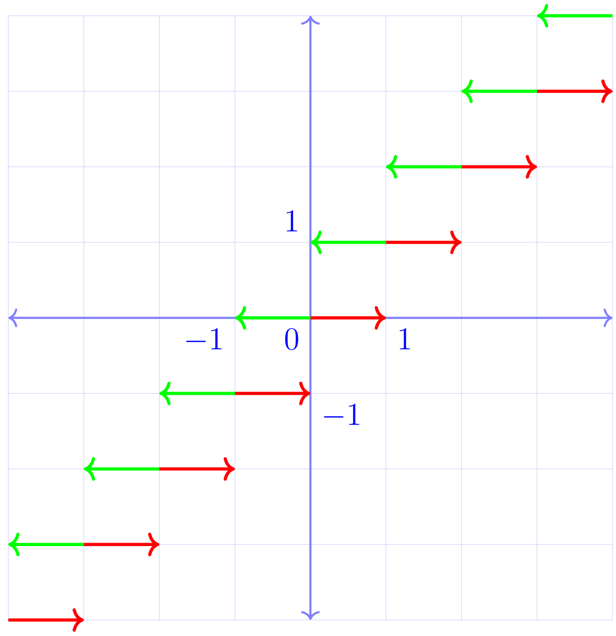

Figure 2: This is an example of a picture in the package *tikz*.

3 Some more list types

This is an example of a bulleted list. Let X, Y be topological spaces and $f : X \to Y$ continous bijection. Then folowing claims are equivalent.

- f is open map.
- f is closed map.

This is an example of a description list. Let X be a T_1-space. We say that X is

regular if for every point $x \in X$ and every nonempty, closed subset $A \subseteq X$ such that $x \notin A$ there exist open sets U and V such that $x \in U$, $A \subseteq V$ and $U \cap V = \emptyset$.

normal if for every nonempty, closed subsets $A, B \subseteq X$ such that $A \cap B = \emptyset$ there exist open sets U and V such that $A \subseteq U$, $B \subseteq V$ and $U \cap V = \emptyset$.

References

[1] A. Dujella, B. Jadrijević, *A family of quartic Thue inequalities*, Acta Arithmetica, **101** (2002); 159-170

[2] U. S. Kirmaci, M. Klaričić Bakula, M. E. Ozdemir, J. Pečarić, *Hadamard-type inequalities for s-convex functions*, Applied Mathematics and Computation, **193** (2007); 26-35

[3] N. Koceić-Bilan, *The coarse shape groups*, Topology and Its Applications, **157** (2010); 894-901

[4] D. Vukičević, B. Furtula, *Topological index based on the ratios of geometrical and arithmetical means of end-vertex degrees of edges*, Journal of mathematical chemistry, **46** (2009); 1369-1376

[5] S. Mardešić and J. Segal, *Shape Theory*, North-Holland, Amsterdam, 1982.

First Author
(1) University of Split, Faculty of Science, Ruđera Boškovića 33, Split 21000, Croatia
(2) University of Split, Livanjska 5, Split 21000, Croatia

E-mail address: `email@pmfst.hr`

Second Author
University of Split, Faculty of Science, Ruđera Boškovića 33, Split 21000, Croatia

E-mail address: `email@pmfst.hr`

Third Author
University of Split, Faculty of Science, Ruđera Boškovića 33, Split 21000, Croatia

E-mail address: `email@pmfst.hr`