



Scuole superiori

Meccanica

OSB



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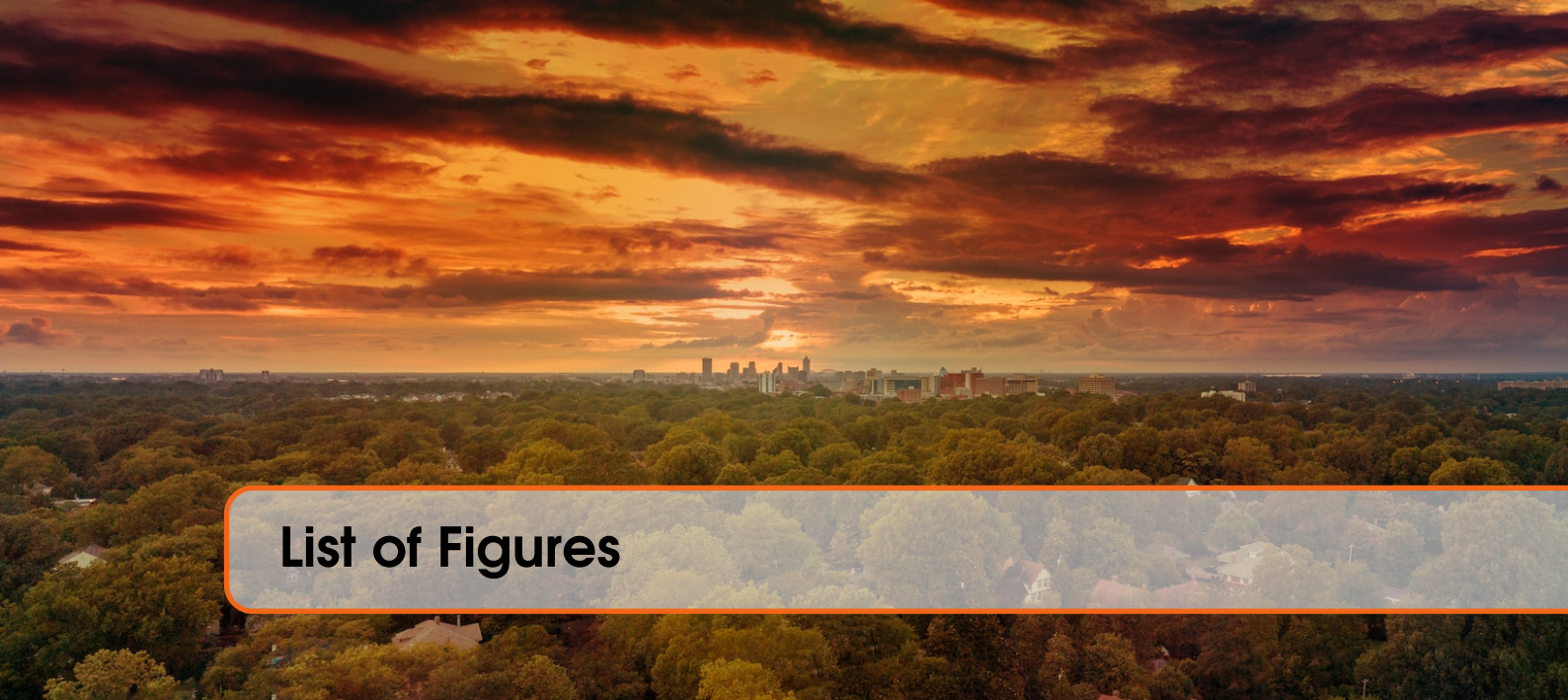
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1. Cinematica

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1.1.2 Corpi rigidi

1.1.3 Corpi deformabili

1.2 Posizione e tempo, velocità e accelerazione

1.3 Moti particolari

1.3.1 Moto rettilineo

1.3.2 Moto parabolico

1.3.3 Moto circolare



2. Forze e azioni



3. Distribuzione di massa



4. Statica



5. Dinamica



6. Cinematica

6.1 Modelli di corpi

6.1.1 Punto

6.1.2 Corpi rigidi

6.1.3 Corpi deformabili

6.2 Posizione e tempo, velocità e accelerazione

6.3 Moti particolari

6.3.1 Moto rettilineo

6.3.2 Moto parabolico

6.3.3 Moto circolare



7. Forze e azioni



8. Distribuzione di massa



9. Statica



10. Dinamica



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11. Sectioning Examples

11.1 Section Title

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11.1.1 Subsection Title

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11.1.1.1 Subsubsection Title

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Unnumbered Section

Unnumbered Subsection

Unnumbered Subsubsection



12. In-text Element Examples

12.1 Referencing Publications

This statement requires citation [1]; this one is more specific [2, page 162].

12.2 Link Examples

This is a URL link: [LaTeX Templates](#). This is an email link: example@example.com. This is a monospaced URL link: `https://www.LaTeXTemplates.com`.

12.3 Lists

Lists are useful to present information in a concise and/or ordered way.

12.3.1 Numbered List

1. First numbered item
 - a. First indented numbered item
 - b. Second indented numbered item
 - i. First second-level indented numbered item
2. Second numbered item
3. Third numbered item

12.3.2 Bullet Point List

- First bullet point item
 - First indented bullet point item
 - Second indented bullet point item
 - First second-level indented bullet point item
- Second bullet point item
- Third bullet point item

12.3.3 Descriptions and Definitions

Name Description

Word Definition

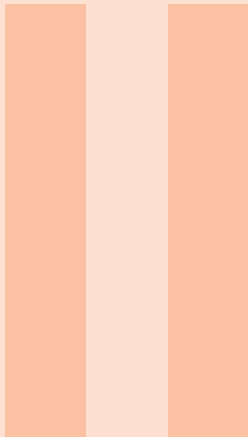
Comment Elaboration

12.4 International Support

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 ßÇÈÆČŠŽ

12.5 Ligatures

fi fj fl ffi ffi Ty



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13. Mathematics

13.1 Theorems

13.1.1 Several equations

This is a theorem consisting of several equations.

Theorem 13.1 — Name of the theorem. In $E = \mathbb{R}^n$ all norms are equivalent. It has the properties:

$$||\mathbf{x}| - ||\mathbf{y}|| \leq ||\mathbf{x} - \mathbf{y}|| \quad (13.1)$$

$$||\sum_{i=1}^n \mathbf{x}_i|| \leq \sum_{i=1}^n ||\mathbf{x}_i|| \quad \text{where } n \text{ is a finite integer} \quad (13.2)$$

13.1.2 Single Line

This is a theorem consisting of just one line.

Theorem 13.2 A set $\mathcal{D}(G)$ is dense in $L^2(G), |\cdot|_0$.

13.2 Definitions

A definition can be mathematical or it could define a concept.

Definition 13.1 — Definition name. Given a vector space E , a norm on E is an application, denoted $||\cdot||$, E in $\mathbb{R}^+ = [0, +\infty[$ such that:

$$||\mathbf{x}|| = 0 \Rightarrow \mathbf{x} = \mathbf{0} \quad (13.3)$$

$$||\lambda \mathbf{x}|| = |\lambda| \cdot ||\mathbf{x}|| \quad (13.4)$$

$$||\mathbf{x} + \mathbf{y}|| \leq ||\mathbf{x}|| + ||\mathbf{y}|| \quad (13.5)$$

13.3 Notations

■ **Notation 13.1** Given an open subset G of \mathbb{R}^n , the set of functions φ are:

1. Bounded support G ;
2. Infinitely differentiable;

a vector space is denoted by $\mathcal{D}(G)$.

13.4 Remarks

This is an example of a remark.



The concepts presented here are now in conventional employment in mathematics. Vector spaces are taken over the field $\mathbb{K} = \mathbb{R}$, however, established properties are easily extended to $\mathbb{K} = \mathbb{C}$.

13.5 Corollaries

Corollary 13.1 — Corollary name. The concepts presented here are now in conventional employment in mathematics. Vector spaces are taken over the field $\mathbb{K} = \mathbb{R}$, however, established properties are easily extended to $\mathbb{K} = \mathbb{C}$.

13.6 Propositions

13.6.1 Several equations

Proposition 13.1 — Proposition name. It has the properties:

$$||\mathbf{x}|| - ||\mathbf{y}|| \leq ||\mathbf{x} - \mathbf{y}|| \quad (13.6)$$

$$||\sum_{i=1}^n \mathbf{x}_i|| \leq \sum_{i=1}^n ||\mathbf{x}_i|| \quad \text{where } n \text{ is a finite integer} \quad (13.7)$$

13.6.2 Single Line

Proposition 13.2 Let $f, g \in L^2(G)$; if $\forall \varphi \in \mathcal{D}(G)$, $(f, \varphi)_0 = (g, \varphi)_0$ then $f = g$.

13.7 Examples

13.7.1 Equation Example

■ **Example 13.1** Let $G = \{x \in \mathbb{R}^2 : |x| < 3\}$ and denoted by: $x^0 = (1, 1)$; consider the function:

$$f(x) = \begin{cases} e^{|x|} & \text{si } |x - x^0| \leq 1/2 \\ 0 & \text{si } |x - x^0| > 1/2 \end{cases} \quad (13.8)$$

The function f has bounded support, we can take $A = \{x \in \mathbb{R}^2 : |x - x^0| \leq 1/2 + \varepsilon\}$ for all $\varepsilon \in]0; 5/2 - \sqrt{2}[$. ■

13.7.2 Text Example

■ **Example 13.2 — Example name.** Aliquam arcu turpis, ultrices sed luctus ac, vehicula id metus. Morbi eu feugiat velit, et tempus augue. Proin ac mattis tortor. Donec tincidunt, ante rhoncus luctus semper, arcu lorem lobortis justo, nec convallis ante quam quis lectus. Aenean tincidunt sodales massa, et hendrerit tellus mattis ac. Sed non pretium nibh. Donec cursus maximus luctus. Vivamus lobortis eros et massa porta porttitor. ■

13.8 Exercises

Exercise 13.1 This is a good place to ask a question to test learning progress or further cement ideas into students' minds. ■

13.9 Problems

Problem 13.1 What is the average airspeed velocity of an unladen swallow?

13.10 Vocabulary

Define a word to improve a students' vocabulary.

- **Vocabulary 13.1 — Word.** Definition of word.

14. Presenting Information and Results with a Long Chapter Title

14.1 Table

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Treatments	Response 1	Response 2
Treatment 1	0.0003262	0.562
Treatment 2	0.0015681	0.910
Treatment 3	0.0009271	0.296

Table 14.1: Table caption.

Referencing Table 14.1 in-text using its label.

14.2 Figure

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Figure 14.1: Figure caption.

Referencing Figure 14.1 in-text using its label.

Treatments	Response 1	Response 2
Treatment 1	0.0003262	0.562
Treatment 2	0.0015681	0.910
Treatment 3	0.0009271	0.296

Table 14.2: Floating table.

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Figure 14.2: Floating figure.

Bibliography

Articles

- [1] A. B. Jones and J. M. Smith. “Article Title”. In: *Journal title* 13.52 (Mar. 2022), pages 123–456. DOI: [10.1038/s41586-021-03616-x](https://doi.org/10.1038/s41586-021-03616-x) (cited on page 35).

Books

- [2] J. M. Smith and A. B. Jones. *Book Title*. 7th. Publisher, 2021 (cited on page 35).

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A. Appendix Chapter Title

A.1 Appendix Section Title

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B. Appendix Chapter Title

B.1 Appendix Section Title

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