# **Title**Subtitle (Work in progress)

Edited by: [Editor]

Contributors: Contributor 1, Contributor 2

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https://en.unesco.org/themes/ building-knowledge-societies/oer



The source code of this book is available.

https://github.com/open-optimization/

<sup>1</sup>https://en.wikipedia.org/wiki/Open\_educational\_resources#/media/File:Global\_Open\_Educational\_
Resources\_Logo.svg

### **Preface**

## 0.0.1 Moved here from open-optimization-or-book/content/intromathprog-or/open-optimization-sections/front-matter.tex

Welcome to the Open Optimization - an ecosystem for open-source materials for teaching optimization and operations research. This ecosystem is being formed to host open-source lecture notes, lecture slides, examples, code, figures, and textbooks on material and courses related to optimization. All material will be licensed under Creative Commons Attribution-ShareAlike 4.0 International (CC BY-SA 4.0) that permits free reuse and alteration of the material provided the proper attribution is given. All material posted will be not just open-source, but open-source code as well - including LaTeX, tikz, and other means of generating content. This allows those interested in reusing material an easy way to change and adapt the material as needed.

Your contributions to this endeavor are greatly valued and appreciated. You are being contacted directly due to the excellent material that you have on your website. We hope you will help with this project and also use it as a resource for future courses, lectures, and presentations.

Content posted here may be adapted into freely available open-source textbooks published through ???. All contributors to this repository will be acknowledged in any publication resulting from this material. Please see ???? as an example.

Goals:

- 1. Create freely available content to make easier teaching, designing courses, writing presentations, and finding reusable content.
- 2. Create free textbooks for courses on optimization and operations research that are:
  - Modern (up to date with current techniques and approaches)
  - Flexible (easy to adapt to the user's choice of presentation of material)
  - Connected to code examples (get students up and running faster)
- 3. Community collaboration on content authoring and revisions
- 4. Collect figures and images with source code for quality reproducibility
- 5. Host instructive code for optimization

# 0.0.2 PREFACE material adapted from The Open Electromagnetics Project - to edit

While a number of very fine traditional textbooks are available on this topic, we feel that it has become unreasonable to insist that students pay hundreds of dollars per book when effective alternatives can be provided using modern media at little or no cost to the student. This project is equally motivated by the desire for the freedom to adopt, modify, and improve educational resources. This work is distributed under a Creative Commons BY~SA license which allows – and we hope encourages – others to adopt, modify, improve, and expand the scope of our work.

Finally, we acknowledge all those who have contributed their art to Wikimedia Commons (https://commons.wikimedia.org/) under open licenses, allowing their work to appear as figures in this book. These contributors are acknowledged in figures and in the "Image Credits" section at the end of each chapter. Thanks to each of you for your selfless effort.

### Why cite Wikipedia pages as additional reading?

Many modules cite Wikipedia entries as sources of additional information. Wikipedia represents both the best and worst that the Internet has to offer. Most educators would agree that citing Wikipedia pages as primary sources is a bad idea, since quality is variable and content is subject to change over time. On the other hand, many Wikipedia pages are excellent, and serve as useful sources of relevant information that is not strictly within the scope of the curriculum. Furthermore, students benefit from seeing the same material presented differently, in a broader context, and with the additional references available as links from Wikipedia pages. We trust instructors and students to realize the potential pitfalls of this type of resource and to be alert for problems.