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Nota di contenuto	Intro -- Preface -- Organization -- Contents - Part I -- Contents - Part II -- Fundamentals of NLP (Oral) -- Exploiting Word Semantics to Enrich Character Representations of Chinese Pre-trained Models -- 1 Introduction -- 2 Related Work -- 3 Multiple Word Segmentation Aggregation -- 4 Projecting Word Semantics to Character Representation -- 4.1 Integrating Word Embedding to Character Representation -- 4.2 Mixing Character Representations Within a Word -- 4.3 Fusing New Character Embedding to Sentence Representation -- 5 Experimental Setup -- 5.1 Tasks and Datasets -- 5.2 Baseline Models -- 5.3 Training Details -- 6 Results and Analysis -- 6.1 Overall Results -- 6.2 Ablation Study -- 6.3 Case Study -- 7 Conclusion -- References -- PGBERT: Phonology and Glyph Enhanced Pre-training for Chinese Spelling Correction -- 1 Introduction -- 2 Related Work -- 3 Our Approach -- 3.1 Problem and Motivation -- 3.2 Model -- 4 Experiment -- 4.1 Pre-training -- 4.2 Fine Tuning -- 4.3 Parameter Setting -- 4.4 Baseline Models -- 4.5 Main Results -- 4.6 Ablation Experiments -- 5 Conclusions -- References -- MCER: A Multi-domain Dataset for Sentence-Level Chinese Ellipsis Resolution -- 1 Introduction -- 2 Definition of Ellipsis -- 2.1 Ellipsis for Chinese NLP -- 2.2 Explanations -- 3 Dataset -- 3.1 Annotation -- 3.2 Dataset Analysis -- 3.3 Annotation Format -- 3.4 Considerations -- 4 Experiments -- 4.1

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Sommario/riassunto	This textbook teaches the transformations of plane Euclidean geometry

through problems, offering a transformation-based perspective on problems that have appeared in recent years at mathematics competitions around the globe, as well as on some classical examples and theorems. It is based on the combined teaching experience of the authors (coaches of several Mathematical Olympiad teams in Brazil, Romania and the USA) and presents comprehensive theoretical discussions of isometries, homotheties and spiral similarities, and inversions, all illustrated by examples and followed by myriad problems left for the reader to solve. These problems were carefully selected and arranged to introduce students to the topics by gradually moving from basic to expert level. Most of them have appeared in competitions such as Mathematical Olympiads or in mathematical journals aimed at an audience interested in mathematics competitions, while some are fundamental facts of mathematics discussed in the framework of geometric transformations. The book offers a global view of the geometric content of today's mathematics competitions, bringing many new methods and ideas to the attention of the public. Talented high school and middle school students seeking to improve their problem-solving skills can benefit from this book, as well as high school and college instructors who want to add nonstandard questions to their courses. People who enjoy solving elementary math problems as a hobby will also enjoy this work.

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