

1. Record Nr.	UNINA9910971867703321
Titolo	Science and skiing / / edited by E. Muller ... [et al.]
Pubbl/distr/stampa	London ; ; New York, : E & FN Spon, 1997
ISBN	1-135-81811-8 0-203-23723-4 1-280-04977-4 0-203-47617-4 1-135-81810-X 9786610049776
Edizione	[1st ed.]
Descrizione fisica	1 online resource (641 p.)
Altri autori (Persone)	MullerErich <1953->
Disciplina	796.93015
Soggetti	Skis and skiing Skis and skiing - Psychological aspects Skis and skiing - Physiological aspects Sports sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"The first International Congress on Skiing and Science was held at St. Christoph a. Arlberg, Austria, from 7-13 January 1996"--P. [xiii].
Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	Science and Skiing; Copyright; Contents; Introduction; Part One: Biomechanics of Skiing; 1 Ski-jumping take-off performance: Determining factors and methodological advances; 2 Load on the locomotor system during skiing. A biomechanical perspective; 3 Biomechanics of ski-jumping-scientific jumping hill design; 4 Joint power production in take-off action during ski-jumping; 5 Inter- and intra-individual variability of the ski-jumper's take-off; 6 Inverse dynamic analysis of take-off in ski-jumping; 7 Effects of 50 km racing on ski skating kinematics in the falun world championship 1993 8 Management of the sport training process with cross-country ski runners through modern apparatus methods and means9 A mathematical method for the analysis of trajectories in giant slalom; 10 Simulation techniques applied to skiing mechanics; 11 Turning the skis without 'mechanisms of turning'; 12 Muscle activity of the inside and outside leg in slalom and giant-slalom skiing; 13 The effect of different

uses of the upper limb on body coordination during rhythmic parallel turning

14 Pressure distribution measurements for the alpine skier-from the biomechanical high tech measurement to its application as SWINGBEEP-feedback system15 Skiing technique in swing turns: Distribution of stress on the hip-joint articular surface; 16 Sensor plates designed for measuring forces between ski and binding-a developmental summary; 17 Different possibilities of measuring force transmission between ski and binding; 18 Ground-reaction forces in alpine skiing, cross-country skiing and ski jumping

19 Constraint forces may influence the measurement of vertical ground reaction forces during slalom skiing20 Structural dynamic analysis of alpine skis during turns; Part Two: Fitness Testing and Training in Skiing; 21 Evaluation and planning of conditioning training for alpine skiers; 22 Kinematic and kinetic analysis of slalom turns as a basis for the development of specific training methods to improve strength and endurance; 23 Types of muscle action of leg and hip extensor muscles in slalom; 24 Predicting skiing performance in 14-18 year old competitive alpine skiers

25 Validity of sport-specific field tests for elite and developing alpine ski racers26 Relationship of anaerobic performance tests to competitive alpine skiing events; 27 Aspects of technique-specific strength training in ski-jumping; 28 Programme for the objectivization of sportspecific performance preconditions, in the long-term development of performance of cross-country skiers; Part Three: Movement Control and Psychology in Skiing; 29 Movement regulation in alpine skiing; 30 The technique of gliding in alpine ski racing-safety and performance 31 A profile of sensorimotor balance of alpine skiers

Sommario/riassunto

The first International Congress on Science and Skiing was held in Austria in January 1996. The main aim of the conference was to bring together original key research in this area and provide an essential update for those in the field. The link between theory and practice was also addressed, making the research more applicable for both researchers and coaches. This book is divided into five parts, each containing a group of papers that are related by theme or disciplinary approach. They are as follows: Biomechanics of Skiing; Fitness testing and Training in Skiing; Movement Control and P
