

1. Record Nr.	UNISA996499855203316
Autore	Li Wei
Titolo	R-calculus, III : post three-valued logic // Wei Li, Yuefei Sui
Pubbl/distr/stampa	Singapore : , : Springer, , [2022] ©2022
ISBN	981-19-4270-6
Descrizione fisica	1 online resource (284 pages)
Collana	Perspectives in formal induction, revision and evolution
Disciplina	515
Soggetti	Calculus Computer logic Proof theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Intro -- Preface to the Series -- Preface -- Contents -- 1 Introduction -- 1.1 Three-Valued Logics -- 1.2 Deduction Systems -- 1.3 R-Calculi -- 1.4 More -- 1.5 Basic Definitions -- 1.5.1 Post Three-Valued Logic -- 1.5.2 Post Three-Valued Description Logic -- 1.5.3 Remarks -- 1.6 Types of Deduction Rules -- 1.7 Notations -- References -- 2 Many-Placed Sequents -- 2.1 Zach's Theorem -- 2.2 Analysis of Zach's Theorem -- 2.3 Tableau Proof Systems -- 2.3.1 Tableau Proof System Tt -- 2.3.2 Tableau Proof System Tm -- 2.3.3 Tableau Proof System Tf -- 2.4 Incompleteness of Deduction System T'' -- References -- 3 Modalized Three-Valued Logics -- 3.1 Bochvar Three-Valued Logic -- 3.1.1 Basic Definitions -- 3.1.2 Multisequent Deduction System Mb -- 3.2 Kleene Three-Valued Logic -- 3.2.1 Basic Definitions -- 3.2.2 Gentzen Deduction System Gk -- 3.3 ukasiewicz's Three-Valued Logic -- 3.3.1 Basic Definitions -- 3.3.2 Tableau Proof System TI -- References -- 4 Post Three-Valued Logic -- 4.1 Theories -- 4.1.1 Tableau Proof System Tt -- 4.1.2 Tableau Proof System Tm -- 4.1.3 Tableau Proof System Tf -- 4.1.4 Transformations -- 4.1.5 Tableau Proof System Tt -- 4.1.6 Tableau Proof System Tm -- 4.1.7 Tableau Proof System Tf -- 4.2 Sequents -- 4.2.1 Gentzen Deduction System Gt -- 4.2.2 Gentzen Deduction System Gm -- 4.2.3 Gentzen Deduction System Gf -- 4.2.4 Gentzen Deduction System Gt -- 4.2.5 Gentzen

Deduction System Gm -- 4.2.6 Gentzen Deduction System Gf -- 4.3
Multisequents -- 4.3.1 Gentzen Deduction System M= -- 4.3.2
Simplified Ms= -- 4.3.3 Gentzen Deduction System M= -- 4.3.4
Simplified Ms= -- 4.3.5 Cut Elimination Theorem -- References -- 5
R-Calculi for Post Three-Valued Logic -- 5.1 R-Calculus for Theories
-- 5.1.1 R-Calculus Rt -- 5.1.2 R-Calculus Rt -- 5.2 R-Calculi East for
Sequents -- 5.2.1 R-Calculus Et -- 5.2.2 R-Calculus Em -- 5.2.3 Basic
Theorems.
5.3 R-Calculi for Multisequents -- 5.3.1 R-Calculus K= -- 5.3.2
Simplified K=s -- 5.3.3 R-Calculus K= -- 5.3.4 R-Calculus K=s --
References -- 6 Post Three-Valued Description Logic -- 6.1 Theories
-- 6.1.1 Tableau Proof System St -- 6.1.2 Tableau Proof System St --
6.2 Sequents -- 6.2.1 Gentzen Deduction System Ft -- 6.2.2 Gentzen
Deduction System Ft -- 6.3 Multisequents -- 6.3.1 Gentzen Deduction
System L= -- 6.3.2 Simplified Ls= -- 6.3.3 Gentzen Deduction System
L= -- 6.3.4 Simplified Ls= -- References -- 7 R-Calculi for Post Three-
Valued Description Logic -- 7.1 R-Calculus for Theories -- 7.1.1 R-
Calculus Qt -- 7.1.2 R-Calculus Qt -- 7.2 R-Calculi for Sequents --
7.2.1 R-Calculus Dt -- 7.2.2 R-Calculus Dm -- 7.3 R-Calculi for
Multisequents -- 7.3.1 R-Calculus J= -- 7.3.2 Simplified J=s -- 7.3.3
Simplified J= -- References -- 8 R-Calculi for Corner Multisequents --
8.1 Corner Multisequents MQQQ= -- 8.1.1 Axioms -- 8.1.2 Deduction
Rules -- 8.1.3 Deduction Systems -- 8.2 Corner Multisequents MQQQ=
-- 8.2.1 Axioms -- 8.2.2 Deduction Rules -- 8.2.3 Deduction Systems
-- 8.3 R-Calculi KQQQ=/KQQQ= -- 8.3.1 Axioms -- 8.3.2 Deduction
Rules -- 8.3.3 Deduction Systems -- 8.4 R-Calculi JQQQ=/JQQQ= --
8.4.1 Axioms -- 8.4.2 Deduction Rules -- 8.4.3 Deduction Systems --
References -- 9 General Multisequents -- 9.1 General Multisequents --
9.2 Axioms -- 9.2.1 Axioms for M=/M= -- 9.2.2 Axioms for L=/L=
Validity -- 9.3 Deduction Rules -- 9.4 Deduction Systems --
References -- 10 R-Calculi for General Multisequents -- 10.1 R-Calculi
K=Q1Q2Q3/K=Q1Q2Q3/J=Q1Q2Q3/J=Q1Q2Q3 -- 10.2 Axioms --
10.2.1 Axioms for K=Q1Q2Q3/K=Q1Q2Q3 -- 10.2.2 Axioms for
J=Q1Q2Q3/J=Q1Q2Q3 -- 10.3 Deduction Rules -- 10.3.1 R+= --
10.3.2 R+= -- 10.3.3 R=- -- 10.3.4 R=- -- 10.4 Deduction Systems
-- References.
