

1. Record Nr.	UNINA9910890182503321
Autore	Skovsmose Ole
Titolo	Critical Philosophy of Mathematics // by Ole Skovsmose
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2024
ISBN	9783031713750 3031713753
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (270 pages)
Collana	Advances in Mathematics Education, , 1869-4926
Disciplina	150.198
Soggetti	Mathematics - Study and teaching Mathematics - Philosophy Teachers - Training of Mathematics Education Philosophy of Mathematics Teaching and Teacher Education Filosofia de la matemàtica Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Part I. Social Complexities -- Chapter 1. Modernity and the Holocaust -- Chapter 2. Glorification of Science and Mathematics -- Chapter 3. Domination by Technology -- Chapter 4. Globalised Exploitation -- Part II. Isolation and Glorification -- Chapter 5. Mathematics as Logical Tautologies -- Chapter 6. Mathematics as Formal Structures -- Chapter 7. Mathematics as Mental Acts -- Chapter 8. Mathematics as Mathematicians' Practice -- Part III. Indefinite Constructions -- Chapter 9. Indefinite with Respect to Concepts and Proofs -- Chapter 10. Indefinite with Respect to Topics and Applications -- Chapter 11. Indefinite with Respect to Power -- Chapter 12. Indefinite with Respect to Culture -- Part IV. Ethical Challenges -- Chapter 13. A Performative Interpretation of Mathematics -- Chapter 14. Performatives -- Chapter 15. Action and Ethics -- Chapter 16. Reflective Inquiries in the Classroom.
Sommario/riassunto	This book provides a philosophy of mathematics that resonates with

critical mathematics education. It draws attention to the social complexities that characterise the period of Modernity including the extreme exploitation of manual workers and their families, brutal forms of colonisations, trading of slaves, and the formation of racist ideologies. It portrays Modernity as a period of contradictions and highlights that mathematics is a part of these contradictions. The text interprets mathematics as being indefinite, seeing that mathematics is a part of the ongoing human constructions. It outlines a performative interpretation of mathematics, portraying mathematics as intrinsically connected to actions. Any kind of action, including mathematics-based actions, calls for ethical considerations and this leads to any mathematical practice, either in research, application, or education, to face ethical challenges. It illustrates with examples how a critical philosophy of mathematics can come to be an integral part of classroom practices.

---