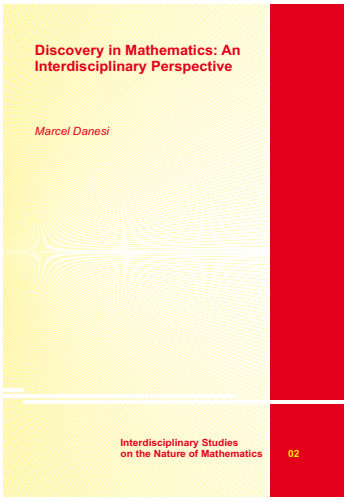

Discovery in Mathematics: An Interdisciplinary Perspective

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This book examines the nature of discovery of mathematics and how it is connected to notation, representation, and language. Using insights from modeling systems theory in semiotics and blending theory in cognitive science, it puts forward the idea that discovery is interconnected with representation, with one model providing insights into deeper structures hidden or implicit in the models themselves. It will look in particular at how diagrammatic reasoning undergirds how mathematicians think and how this, in itself, is a source of further ideas and conceptualizations in the field, leading to new models, new theories, branches, and so on.

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