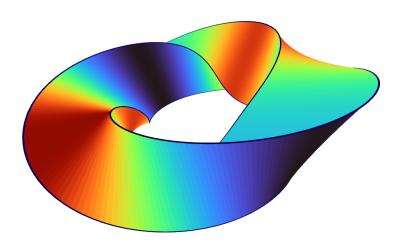
Poncelet Invariants: an Experimental Promenade



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Introduction

Part I N=3 Phenomena

N=3 Confocal Pair

N=3 Concentric, Axis Parallel

N=3 Non-concentric, Axis Parallel

Analyzing Loci of N=3 Poncelet Families

Part II N > 3 Phenomena

Invariants in the Elliptic Billiard

Invariants of the Bicentric Family

Invariants of the Homothetic and Brocard Families

Experimental Techniques

Part III Poncelet Machinery

Poncelet Preliminaries

Epilogue: Properties of Pairs of Conics

Conclusion