The Topology of Chaos Chapter 5: Basis Sets of Orbits

Gilmore

Basis Sets of Orbits-01

Basis Sets of Orbits-02

Basis Sets of Orbits-03

Basis Sets of Orbits-04

The Topology of Chaos Chapter 5: Basis Sets of Orbits

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September 2, 2008



Orbits Can be "Pruned"

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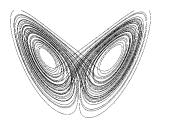
Basis Sets of Orbits-01

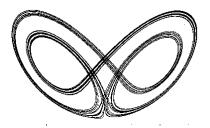
Basis Sets of

Basis Sets of Orbits-03

Basis Sets of

There Are Some Missing Orbits





Lorenz

Shimizu-Morioka

Linking Numbers, Relative Rotation Rates, Braids

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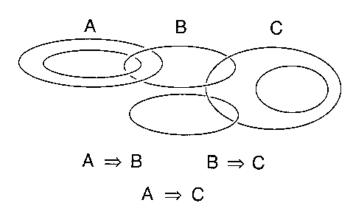
Basis Sets of Orbits-01

Basis Sets of Orbits-02

Basis Sets of

Basis Sets of Orbits-04

Orbit Forcing



An Ongoing Problem

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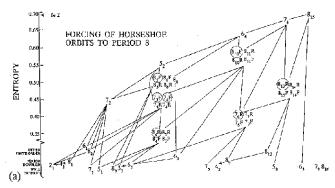
Basis Sets o Orbits-01

Basis Sets o

Basis Sets of Orbits-03

Basis Sets of

Forcing Diagram - Horseshoe



u - SEQUENCE ORDER



An Ongoing Problem

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Orbits-01

Basis Sets o

Basis Sets of Orbits-04

Status of Problem

- Horseshoe organization active
- More folding barely begun
- Circle forcing even less known
- Higher genus new ideas required