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## Regional Geometry Institute Collection

Digital

1991 July

20 boxes (20 linear feet)

Call no.: RG 25 M5 G3



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Funded by the National Science Foundation, the Regional Geometry Institute held at the Five Colleges in 1991 included a series of talks by noted mathematicians exploring the shape of space and related topics.

The videotapes in this collection were recorded at the Regional Geometry Institute organized by Five Colleges mathematics faculty and convened at Mount Holyoke in July 1991. The Institute sponsored a dozen speakers on the shape of space and related topics, most giving more than one lecture.

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## Background on Regional Geometry Institute

In 1990, a group of six mathematicians from UMass Amherst and the Five Colleges community were awarded a grant from the National Science Foundation to establish a Regional Geometry Institute. The principal investigators -- Donal O'Shea, Marjorie Senechal, Robert Kusner, Eduardo Cattani, David Cox, and Robert Currier -- proposed convening a group of graduate and undergraduate students and university and high school faculty to explore the interaction between geometry and computation.

As part of the Institute, the Five Colleges hosted a series of talks in July 1991 in which noted mathematicians discussed the shape of space and related topics.

## Scope of collection

The videotapes in this collection were recorded at the Regional Geometry Institute organized by Five Colleges mathematics faculty and convened at Mount Holyoke in July 1991. The Institute sponsored a dozen speakers on the shape of space and related topics, most giving more than one lecture.

The lectures were recorded in relatively brief segments, averaging around 20 minutes. They have not been spliced together.

## Inventory

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Banchoff, Thomas: Geometry as a lab science

1991 July 9

Box 15

Berger, Marcel, 1927-: Circles I

1991 July 2

Box 19

Berger, Marcel, 1927-: Circles II

1991 July 4

Box 9

Berger, Marcel, 1927-: **Convex bodies**

1991 July 9

3 parts

Box 3-4

Bourgignon, J.-P. (Jean-Pierre), 1947-: Drum-matic mathematics

1991 July 20

Box 12

Bourgignon, J.-P. (Jean-Pierre), 1947-: Faber-Krahn inequality

1991 July 22

Box 16

Bourgignon, J.-P. (Jean-Pierre), 1947-: **Dirac operators and Riemannian geometry**

1991 July 24

5 parts

Box 4

Brakke, Kenneth A.: Opaque squares and regions

1991 July 1

Box 20

deTurck, Dennis M.: **Music of the spheres and other symmetric spaces**

1997 July 23

4 parts

Box 1-2

Gluck, Herman: Calibrations I

1991 July 22

Box 13

Gluck, Herman: **Calibrations II: shape of a projective spaces and Lie groups**

1991 July 23

3 parts

Box 2

Gluck, Herman: Calibrations III

1991 July 24

Box 17  
Gluck, Herman: Calibrations IV  
1991 July 25  
Box 11  
Gluck, Herman: Calibrations V  
1991 July 26  
Box 17  
Karcher, Hermann, 1938-: Minimal surfaces  
1991 July 19  
Box 8  
Karcher, Hermann, 1938- and David Hoffman: A minimal surface debate  
1991 July 26  
Box 10  
Morgan, Frank (Professor Mathematics, Williams College): Calibrations and area minimizing surfaces in manifolds  
1991 July 4  
Box 18  
Morgan, Frank (Professor Mathematics, Williams College): **Crystals and shortest networks**  
1991 July 2  
3 parts  
Box 2-3  
Morgan, Frank (Professor Mathematics, Williams College): **Soap bubbles and mathematics**  
1991 July 1  
4 parts  
Box 1  
Schwartz, Judah: Computer environments for learning mathematics  
1991 July 23  
Box 20  
Slugbate, Mel [i.e. Colin Adams]: Real estate oppprtunities in hyperbolic space  
1991 July 8  
Box 14  
Weeks, Jeffrey R., 1956-: **Shape of space**  
1991 July 9  
3 parts  
Box  
Session in geometry of variational problems  
1991 July 3  
Box 14

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## Administrative information

### Access

The collection is open for research.

### Provenance

Gift of Rob Kusner, 2013.

### Digitized content

Several of the talks have been digitized are available for viewing online through our digital repository, Credo.

### Processing Information

Processed by I. Eliot Wentworth, Jan. 2018.

### Language:

English

### Copyright and Use (More information )

*Cite as:* Regional Geometry Institute Collection (RB 25 M5 G3). Special Collections and University Archives, University of Massachusetts Amherst Libraries.

## Search terms

### Subjects

Adams, Colin

Banchoff, Thomas  
Berger, Marcel, 1927-  
Bourgignon, J.-P. (Jean-Pierre), 1947-  
Brakke, Kenneth A.

Geometry

Gluck, Hermann

Hoffman, David

Karcher, Hermann, 1938-

Minimal surfaces

Morgan, Frank (Professor Mathematics, Williams College)

Riemannian manifolds

Schwartz, Judah

Soap bubbles--Mathematics

Space--Mathematics

Surfaces--Mathematics

Topology

University of Massachusetts Amherst. Department of Mathematics and Statistics. Center for Geometry, Analysis, Numerics and Graphics

Weeks, Jeffrey R., 1956-

deTurck, Dennis M.

### Contributors

Regional Geometry Institute [main entry]

### Genres and formats

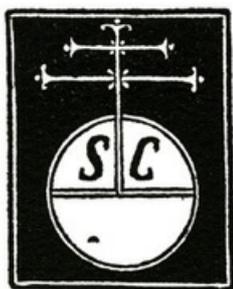
Videotapes

### Link to similar SCUA collections

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