

STEM Society Meeting, November 10, 2015

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Last Edit: 11/30/2015

Contents

1	About the STEM Society and the STEM Society Website	1
2	The November Meeting Announcement	2
3	James Emery: A Geometric Modeling System Based on Quadric Surfaces and Projective Geometry	3
4	James Emery: Matlab and Octave	3
5	Bob Kessler: On John Brockman, C. P. Snow, The Two Cultures, Edgar Snow, Carolyn Benton Cockefair, and a Recent book by Brockman	3
6	John Gamble: Attempts to Plot Cross Sections of Manifolds (Surfaces) of Greater Than Two Dimensions	4

1 About the STEM Society and the STEM Society Website

STEM is an abbreviation for Science, Technology, Engineering and Mathematics. The acronym STEM is commonly associated with K-12 education, but our use of the term is only slightly bound to this meaning. There are over one hundred people on the mailing list, although a much smaller group attends any one meeting. We meet on the second Tuesday of each month at

the Trailside Center at 99th and Holmes in Kansas City, Missouri. The meetings are open to all. The start time is 6PM. We make presentations, have discussions, and have demonstration experiments. These relate to Science, the History of Science, Mathematics, Engineering, Philosophy and Technology at all levels. The topics have ranged from a technical discussion of the mathematics of General Relativity to scientific experiments for young students.

These meeting notes contain links to many other documents, which may be viewed or downloaded by clicking the link. A partial list of documents can be reached by clicking the heading **Documents**. The meeting notes may also be viewed in an archive file (archive.pdf), which is in the list of documents. Many of the documents are PDF files. They may be viewed or downloaded to the computer by clicking, provided Adobe Reader, or another program capable of reading PDF files, is present. There are many more documents available at the site than are listed under **Documents** because the documents.htm file is not at all up to date. The last time I checked, about March 2014, there were about 350 document files on the site. We are in the process of creating better techniques for finding documents and authors. The first meeting of the STEM Society was in November of 2006. For several years we used the content management program called Joomla. It had a fancy looking interface, but was hard to use. It overran the space somehow at our internet provider Bluehost. So we now have a very simple HTML site. It is not so slick looking as Joomla, but is very easy to maintain and modify.

The web site is:

<http://www.stem2.org/>

Direct to the documents list:

<http://www.stem2.org/je/documents.htm>

Direct to the archive file:

<http://www.stem2.org/je/archive.pdf>

2 The November Meeting Announcement

The November meeting of the STEM Society will take place on the second Tuesday of the month, November 10, 2015, at the Trailside Center at 99th and Holmes in Kansas City, Missouri. The starting time is 6PM.

Questions, Topics and possible Discussions:

- (a) Perhaps we can look at Matlab and Octave.
- (b) We shall present a Geometric Modeling System using the principles of Projective Geometry.
- (c) As always, attendees are free to bring additional things, ideas, and presentations.

3 James Emery: A Geometric Modeling System Based on Quadric Surfaces and Projective Geometry

stem2.org/je/quadrici.pdf

4 James Emery: Matlab and Octave

stem2.org/je/matlab.pdf

5 Bob Kessler: On John Brockman, C. P. Snow, The Two Cultures, Edgar Snow, Carolyn Benton Cockefair, and a Recent book by Brockman

The recent book **What to Think About Machines That Think** was edited by John Brockman. This is a great book! John Brockman was also a literary agent. Brockman recently died. Jim Emery asked "Why did he die, is book writing that dangerous?" I think he died because he was old...

A little background...I began following the issue of science and literature since reading the book "The Two Cultures" by C.P. Snow many years ago. In May, 1959, C.P. Snow gave a lecture at the Cambridge annual Rede Lecture

on the subject "The Two Cultures and the Scientific Revolution". The book was based on the lecture he gave. I had finished my 4 years of mechanical engineering at General Motors Institute in 1957 and began taking courses for a degree at UMKC. In 1958 and 1959 I took two excellent courses in World Literature taught by Carolyn Benton Cockefair, she retired a year or so later. The present organization, UMKC Carolyn Benton Cockefair Chair, had C.P. Snow as their annual dinner event speaker in November, 1968. He also was the speaker for the opening of the Spencer Library at K.U.

What I got from Snow was the need to balance the influence in communities between the arts and science. In 1995 John Brockman published the book "The Third Culture" which picked up on the C.P. Snow theme...and the book included 23 authors on the subjects of evolution, our origins, Darwin's algorithm. and beyond ourselves.

C.P. Snow is one of the themes I kinda follow from the song "Let it Snow, Let it Snow, Let it Snow"...the other two are Edgar Snow and China...and the idea associated with the book "Pissing in the Snow"...and the three snows having an important relation to the Kansas City area and our need to assure the balance between cultural focuses.

The scientific revolution has changed a bit and the subject of artificial intelligence is becoming important in spite of the fact that my intelligence is artificial.

6 John Gamble: Attempts to Plot Cross Sections of Manifolds (Surfaces) of Greater Than Two Dimensions

John is attempting to do this with Octave.