

# Where to Find More Information about Computer Graphics and Scientific Visualization

## CS 419H

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### 1. References

#### 1.1 General

SIGGRAPH Online Bibliography Database:

<http://www.siggraph.org/publications/bibliography>

F. S. Hill, *Computer Graphics Using OpenGL*, Prentice Hall, 2001.

Edward Angel, *Interactive Computer Graphics: A Top-down Approach with OpenGL*, Addison-Wesley, 2003.

Alan Watt, *3D Computer Graphics*, 3<sup>rd</sup> Edition, Addison-Wesley, 2000.

#### 1.2 Math and Geometry

Eric Lengyel, *Mathematics for 3D Game Programming and Computer Graphics*, Charles River Media, 2002.

Walter Taylor, *The Geometry of Computer Graphics*, Wadsworth & Brooks/Cole, 1992.

Gerald Farin and Dianne Hansford, *The Geometry Toolbox for Graphics and Modeling*, AK Peters, 1998.

#### 1.3 Scientific Visualization

Klaus Engel, Markus Hadwiger, Joe Kniss, Christof Rezk-Salama, and Daniel Weiskopf, *Real-Time Volume Graphics*, A.K. Peters, 2006.

Christopher Johnson and Charles Hansen, *The Visualization Handbook*, Elsevier Academic Press, 2005.

David Thompson, Jeff Braun, and Ray Ford, *OpenDX: Paths to Visualization*, Visualization and Imagery Solutions, Inc., 2001.

#### 1.4 Color and Perception

Maureen Stone, *A Field Guide to Digital Color*, AK Peters, 2003.

David Travis, *Effective Color Displays*, Academic Press, 1991.

L.G. Thorell and W.J. Smith, *Using Computer Color Effectively*, Prentice Hall, 1990.

Edward Tufte, *The Visual Display of Quantitative Information*, Graphics Press, 1983.

Edward Tufte, *Envisioning Information*, Graphics Press, 1990.

Edward Tufte, *Visual Explanations*, Graphics Press, 1997.

Edward Tufte, *Beautiful Evidence*, Graphics Press, 2006.

## 1.5 Rendering

Andrew Glassner, *Principles of Digital Image Synthesis*, Morgan Kaufmann, 1995.

Michael Cohen and John Wallace, *Radiosity and Realistic Image Synthesis*, Morgan-Kaufmann, 1993.

## 1.6 Images

David Ebert et al, *Texturing and Modeling*, 2<sup>nd</sup> Edition, Academic Press, 1998.

Alan Watt and Fabio Policarpo, *The Computer Image*, Addison-Wesley, 1998.

## 1.7 Animation

Alan Watt and Mark Watt, *Advanced Animation and Rendering Techniques*, Addison-Wesley, 1998.

Nadia Magnenat Thalmann and Daniel Thalmann, *Interactive Computer Animation*, Prentice-Hall, 1996.

## 1.8 Games

Alan Watt and Fabio Policarpo, *Advanced Game Development with Programmable Graphics Hardware*, AK Peters, 2005.

David Eberly, *3D Game Engine Design: A Practical Approach to Real-Time Computer Graphics*, Morgan Kaufmann, 2006.

Eric Lengyel, *Mathematics for 3D Game Programming and Computer Graphics*, Charles River Media, 2002.

David Bourg, *Physics for Game Developers*, O'Reilly and Associates, 2002.

<http://www.gamedev.net>

<http://www.gamasutra.net>

## 1.9 Miscellaneous

*OpenGL 2.0 Reference Manual*, Addison-Wesley, 2006.

*OpenGL 2.0 Programming Guide*, Addison-Wesley, 2005 (5<sup>th</sup> edition).

Edward Angel, *OpenGL: A Primer*, Addison-Wesley, 2002.

## 2. Periodicals

*Computer Graphics and Applications*: published by IEEE  
(<http://www.computer.org>, 714-821-8380)

*Computer Graphics World*: published by Pennwell  
(<http://www.cgw.com>, 603-891-0123)

*Game Developer*: published by CMP Media  
(<http://www.gdmag.com>, 415-905-2200)  
(Once a year publishes the *Game Career Guide*.)

*Cinefex*  
(<http://www.cinefex.com>, 951-781-1917)

## 3. Professional organizations

ACM .....Association for Computing Machinery  
<http://www.acm.org>, 212-869-7440

SIGGRAPH .....ACM Special Interest Group on Computer Graphics  
<http://www.siggraph.org>, 212-869-7440

IEEE.....Institute of Electrical and Electronic Engineers  
<http://www.computer.org>, 202-371-0101

NAB .....National Association of Broadcasters  
<http://www.nab.org>, 800-521-8624

## 4. Conferences

ACM SIGGRAPH:  
2007: San Diego – August 5-9  
<http://www.siggraph.org/s2007>

IEEE Visualization:  
2007: Sacramento, CA – October 27-November 1  
<http://vis.computer.org>

Game Developers Conference:  
2007: San Francisco, CA – March 5-9  
<http://www.gdconf.com>

Electronic Entertainment Expo:  
2007: Santa Monica, CA – July 11-13  
<http://www.e3expo.com>