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SECTION 2 – TEACHING

2.1. TEACHING EXPERIENCE

2.2.1. Credit Courses at University of Calgary

- Course description link @ <course number>
- In parenthesis after the course title: number of times I taught the course, enrollment

1. Graduate Level

CPSC 601 – **Special Topics in Computer Science** (10X, avg. enroll. = 8)

- Interactive Visual Computing in Geoscience & Petroleum Engineering (2X)
- Visualization & Analytics for Reservoir Simulation (2X)
- Interactive Visual Computing in Science, Medicine & Engineering (1X)
- Illustrative Visualization (2X)
- Non-Photorealistic Rendering (3X)

2. Undergraduate (4th yr. *ugrad prgm*) / Graduate Level (a.k.a, Cross-Listed course)

- CPSC 591/691 – **Rendering** (9X, avg. enroll. = 20)
- CPSC 587/687 – **Fundamentals of Computer Animation** (2X, avg. enroll. = 19)

3. Undergraduate Level

4th yr. *ugrad prgm*

- CPSC 585 – **Games Programming** (2X, avg. enroll. = 11)
- CPSC 503 – **Project** (4X, avg. enroll. = 8)
- CPSC 502 – **Honours Thesis** (2X, avg. enroll = 5)

3rd yr. *ugrad prgm*

- CPSC 453 – **Introduction to Computer Graphics** (5X, avg. enroll. = 48)
- CPSC 441 – **Computer Communications** (1X, enroll.= 35)

2nd yr. *ugrad prgm*

- CPSC 331 – **Data Structures, Algorithms, and Their Analysis** (1X, enroll. = 75)
- CPSC 319 – **Data Structures, Algorithms, and Their Applications** (3X, avg. enroll. = 59)

2.2.1. Other Teaching during University of Calgary

2.2.1.1. Sabbatical Leaves

1. IMPA – National Institute of Pure and Applied Mathematics, Brazil

- *Period:* December 2007 – April 2008
- *Rsrch Group/Lab (Head):* VISGRAF: Computer Graphics Lab (Dr. Luiz Velho)
- *Position:* **Visiting Researcher**

Teaching (Graduate Level):

- **Interactive Illustrative Graphics and Visualization**
- **3D Graphics Systems**

2.2.1.2. Conference Courses & Tutorials

2008 [1 entry] Conferences Courses & Tutorials: Organization & Lecturers (Refereed)

1. Costa Sousa *et al.* '08

Interactive Tools for Scientific and Medical Illustration Composition.

Eurographics (EG '08), Tutorial #8 (Half-Day)

Crete, Greece, 2008/04.

➤ Co-Organizers:

- Costa Sousa M. (*U. of Calgary, CAD*)
- Ebert DS. (*Purdue U. , USA*)
- Viola I. (*U. Bergen, NOR*)

➤ Research Themes (Sec. 4): RT-(1, 2, 3)

➤ Web link

➤ Lecturers:

- Andrews B. (*Medical College of Georgia, USA*)
- Bruckner S. (*TU Vienna, AUT*)
- Chen W. (*Zhejiang U. , CHN*)
- Correa C. (*U. of California - Davis, USA*)
- Costa Sousa M. (*U. of Calgary, CAD*)
- Ebert DS. (*Purdue U. , USA*)
- Viola I. (*U. Bergen, NOR*)

2007 [1 entry] Conferences Courses & Tutorials: Organization & Lecturers (Refereed)

2. Costa Sousa '07

Costa Sousa M. (2007). **Sketch-based Interfaces and Modeling + Non-Photorealistic Rendering for Implicit Surfaces.** *Computer Graphics International* (CGI '07), Tutorial #2 - An Introduction to Implicit Modelling Techniques. Petropolis, RJ, Brazil, 2007/05-06.

➤ Organizer: Wyvill B. (*U. of Calgary, CAD*)

➤ Research Themes (Sec. 4): RT-(1, 2)

2006 [3 entries] Conferences Courses & Tutorials: Organization & Lecturers (Refereed)

3. Ebert & Costa Sousa '06a

Illustrative Visualization for Medicine and Science. *IEEE Visualization* (Vis '06), Tutorial #3 (Full Day). Baltimore, MD, USA, 2006/10-11.

➤ Co-Organizers:

- Ebert DS. (*Purdue U. , USA*)
- Costa Sousa M. (*U. of Calgary, CAD*)

➤ Research Themes (Sec. 4): RT-(1, 3)

➤ Web link

➤ Lecturers:

- Andrews B. (*Medical College of Georgia, USA*)
- Bruckner S. (*TU Vienna, AUT*)
- Costa Sousa M. (*U. of Calgary, CAD*)
- Ebert DS. (*Purdue U. , USA*)
- Gooch B. (*Northwestern U., USA*)
- Stredney D. (*Ohio Supercomputer Ctr. , USA*)
- Svakhine N. (*Purdue U. , USA*)
- Tietjen C. (*U. of Magdeburg, DEU*)
- Viola I. (*TU Vienna, AUT*)

4. Ebert & Costa Sousa '06b

Illustrative Visualization for Medicine and Science.

SIGGRAPH 2006, Course #6 (Full Day), Level: Intermediate.
Boston, MA, USA, 2006/08.

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| <ul style="list-style-type: none"> ➤ Co-Organizers: <ul style="list-style-type: none"> • Ebert DS. (<i>Purdue U.</i>, USA) • Costa Sousa M. (<i>U. of Calgary</i>, CAD) ➤ Research Themes (Sec. 4): RT-(1, 3) ➤ Web link | <ul style="list-style-type: none"> ➤ Lecturers: <ul style="list-style-type: none"> • Andrews B. (<i>Medical College of Georgia</i>, USA) • Bruckner S. (<i>TU Vienna</i>, AUT) • Costa Sousa M. (<i>U. of Calgary</i>, CAD) • Ebert DS. (<i>Purdue U.</i>, USA) • Gooch B. (<i>Northwestern U.</i>, USA) • Stredney D. (<i>Ohio Supercomputer Ctr.</i>, USA) • Svakhine N. (<i>Purdue U.</i>, USA) • Viola I. (<i>TU Vienna</i>, AUT) |
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5. Viola et al. '06

Illustrative Visualization for Medicine and Science.

Eurographics (EG '06), Tutorial #11 (Half-Day)
Vienna, Austria, 2006/09.

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| <ul style="list-style-type: none"> ➤ Co-Organizers: <ul style="list-style-type: none"> • Viola I. (<i>TU Vienna</i>, AUT) • Costa Sousa M. (<i>U. of Calgary</i>, CAD) • Ebert DS. (<i>Purdue U.</i>, USA) ➤ Research Themes (Sec. 4): RT-(1, 3) ➤ Web link | <ul style="list-style-type: none"> ➤ Lecturers: <ul style="list-style-type: none"> • Andrews B. (<i>Medical College of Georgia</i>, USA) • Costa Sousa M. (<i>U. of Calgary</i>, CAD) • Ebert DS. (<i>Purdue U.</i>, USA) • Gooch B. (<i>Northwestern U.</i>, USA) • Preim B. (<i>U. of Magdeburg</i>, DEU) • Svakhine N. (<i>Purdue U.</i>, USA) • Tietjen C. (<i>U. of Magdeburg</i>, DEU) • Viola I. (<i>TU Vienna</i>, AUT) |
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2005 [2 entries] Conferences Courses & Tutorials: Organization & Lecturers (Refereed)

6. Ebert & Costa Sousa '05

Computer-Generated Medical, Technical, and Scientific Illustration.

SIGGRAPH 2005, Course #31 (Half- Day), Level: Intermediate.
Los Angeles, CA, USA, 2005/08.

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| <ul style="list-style-type: none"> ➤ Co-Organizers: <ul style="list-style-type: none"> • Ebert DS. (<i>Purdue U.</i>, USA) • Costa Sousa M. (<i>U. of Calgary</i>, CAD) ➤ Research Themes (Sec. 4): RT-(1, 3) ➤ Web link | <ul style="list-style-type: none"> ➤ Lecturers: <ul style="list-style-type: none"> • Costa Sousa M. (<i>U. of Calgary</i>, CAD) • Ebert DS. (<i>Purdue U.</i>, USA) • Gooch A. (<i>Northwestern U.</i>, USA) • Stredney D. (<i>Ohio Supercomputer Ctr.</i>, USA) |
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7. **Viola et al. '05****Illustrative Visualization.**

IEEE Visualization (Vis '05), Tutorial #5 (Full Day).
Minneapolis, MN, USA, 2005/10.

- **Co-Organizers & Lecturers:**
 - **Costa Sousa M.** (*U. of Calgary, CAD*)
 - Ebert DS. (*Purdue U. , USA*)
 - Gröller E. (*TU-Vienna, AUT*)
 - Hadwiger M. (*VRVis Rsrch. Ctr. , AUT*)
 - Preim B. (*U. of Magdeburg, DEU*)
 - Stredney D. (*Ohio State U. , USA*)
 - Viola I. (*TU-Vienna, AUT*)
- Research Themes (Sec. 4): RT-(1, 3)
- Web link

2003 [1 entry] Conferences Courses & Tutorials: Organization & Lecturers (Refereed)

8. **Costa Sousa '03****Theory and Practice of Non-Photorealistic Graphics: Algorithms, Methods, and Production Systems.**

SIGGRAPH 2003, Course #10 (Full Day), Level: Intermediate.
Los Angeles, CA, USA, 2003/07.

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| <ul style="list-style-type: none"> ➤ Organizer: <ul style="list-style-type: none"> • Costa Sousa M. (<i>U. of Calgary, CAD</i>) ➤ Research Themes (Sec. 4): RT-1 ➤ Web link | <ul style="list-style-type: none"> ➤ Lecturers: <ul style="list-style-type: none"> • Achorn B. (<i>Walt Disney Feature Animation, USA</i>) • Teece D. (<i>Walt Disney Feature Animation, USA</i>) • Carpendale S. (<i>U. of Calgary, CAD</i>) • Costa Sousa M. (<i>U. of Calgary, CAD</i>) • Ebert DS (<i>Purdue U. , USA</i>) • Gooch B. (<i>U. of Utah, USA</i>) • Interrante V. (<i>U. of Minnesota, USA</i>) • Streit L. (<i>U. of British Columbia, CAD</i>) • Veryovka O. (<i>Electronic Arts, CAD</i>) |
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2.2. TEACHING PRIOR TO UNIVERSITY OF CALGARY1. **Department of Computing Science, University of Alberta, Canada**

- *Period:* July 1999 – July 2000
- *Position:* **Faculty lecturer**

Teaching (1st yr, undergraduate level)

- **CMPUT 101 – Introduction to Computing** (1X, enroll. = ~120)
- **ENCMP 100 – Computer Programming for Engineers** (1X, enroll. = ~100)

2. Department of Informatics, Catholic University of Petropolis (UCP), Brazil

- *Period:* July 1990 – July 1995
- *Position:* **Sr. Faculty Lecturer**

Teaching (Undergraduate level):

- **3D Computer Graphics - Modeling and Rendering** (2X, avg. enroll. = ~20)
- **Linear Algebra** (7X, avg. enroll. = ~60)
- **Interactive Computer Graphics - Systems and Concepts** (3X, enroll. = ~30)
- **Data Abstraction and Polymorphic Data Types in C** (2X, enroll. = ~20)
- **User Interface Design** (2X, enroll. = ~20)
- **Introduction to Software Engineering** (3X, enroll. = ~50)

2.3. HIGHLY QUALIFIED PERSONNEL (HQP) TRAINING

Please refer to Section 3.