

# CV Jenny Maria Folkesson

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**Born: April 13, 1978**

**Nationality: Swedish**

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## Education

**2004-10 – 2007-10 (Expected)**

**Ph.D. student in Medical Image Analysis**

**University of Copenhagen, Denmark**

The project involves segmentation and quantitative assessment of medical images using mainly pattern recognition and level set techniques. The main focus is on articular cartilage in knee MRI, but also concerns myocardium segmentation in late contrast enhanced cardiac MRI. Part of the project (approximately 7 months) was spent at Brigham and Women's Hospital at Harvard Medical School, Boston, USA.

**Fall 1997 – Fall 2003**

**Master of Science in Engineering Physics**

**Lund Institute of Technology, Sweden**

The thesis project was on image analysis of 2D gel electrophoresis images at the biomedical company Ludesi AB in Lund. One year (fall 2002 - spring 2003) was spent as an exchange student at University of Waterloo, Canada, in the Systems Design Engineering department.

**Spring 2000**

**French Course**

**Universite de Savoie, France**

French language course.

**Fall 1999**

**Theoretical Physics Course**

**Lund University, Sweden**

A full semester course treating Classical and Statistical Physics.

## Work Experience

**2004-05 - 2004-10**

**Research Assistant**

**IT University of Copenhagen, Denmark**

Research Assistant working on the osteoarthritis project in the Image Group at the IT University of Copenhagen, which later lead to a Ph.D. scholarship.

**2002-02 - 2002-08**

**Laboratory Assistant**

**Tetra Pak, Lund, Sweden**

Duties involved performing material tests and various product tests, and was part-time during the semester and full-time during the summer.

**2001-08 - 2002-06**

**Croupier**

**Cherry Casino AB, Sweden**

Working as a croupier dealing mainly Black Jack and poker at pubs and night clubs in Lund and Malmoe.

**2000-08 - 2000-12**  
**Clifton Court Hotel, Dublin, Ireland**  
Bartending.

**Bar Staff**

**1999-06 - 1999-08**  
**LindinVent AB, Lund, Sweden**

**Assembler**

Working as an assembler of electronic and mechanical components for ventilation systems.

## Teaching Experience

**Fall 2005.** Project Supervisor in Basic Programming, IT University of Copenhagen.

**Fall 2005.** Teacher (lectures and exercises/assignments) in Image and Signal Processing, IT University of Copenhagen.

**Spring 2005.** Teacher (exercises/assignments) in Image Analysis, IT University of Copenhagen.

## Publications

### Peer-Reviewed Journal Papers

Jenny Folkesson, Erik B. Dam, Ole Fogh Olsen, Paola Pettersen and Claus Christiansen, *Segmenting Articular Cartilage Automatically Using a Voxel Classification Approach*, IEEE Transactions on Medical Imaging, vol. 26, pp 106-115, 2007.

Erik B. Dam, Jenny Folkesson, Paola Pettersen and Claus Christiansen, *Automatic Morphometric Cartilage Quantification in the Medial Tibial Plateau from MRI for Osteoarthritis Grading*, Osteoarthritis & Cartilage, 2007. In press.

Arish A. Qasi, Jenny Folkesson, Paola Pettersen, Morten A. Karsdal, Claus Christiansen and Erik B. Dam *Separation of healthy and early osteoarthritis by automatic quantification of cartilage homogeneity*, Osteoarthritis & Cartilage, 2007. In press.

### Peer-Reviewed Conference Papers

Jenny Folkesson, Erik B. Dam, Ole Fogh Olsen, Paola Pettersen and Claus Christiansen, *Automatic Curvature Analysis of the Articular Cartilage Surface*, MICCAI Joint Disease Workshop, 2006.

Jenny Folkesson, Erik B. Dam, Ole Fogh Olsen, Paola Pettersen and Claus Christiansen, *Position Normalization in Automatic Cartilage Segmentation*, MICCAI Joint Disease Workshop, 2006.

Jenny Folkesson, Erik B. Dam, Ole Fogh Olsen, Paola Pettersen and Claus Christiansen, *Automatic Segmentation of the Articular Cartilage in Knee MRI Using a Hierarchical Multi-class Classification Scheme*, MICCAI, pp 327-334, 2005.

Jenny Folkesson, Ole Fogh Olsen, Erik B. Dam, Paola Pettersen and Claus Christiansen, *Combining Binary Classifiers for Automatic Cartilage Segmentation in Knee MRI*, ICCV First International Workshop CVBIA, pp 230-239, 2005.

Jenny Folkesson, Erik B. Dam, Paola Pettersen, Mads Nielsen, Ole Fogh Olsen and Claus Christiansen, *Locating Articular Cartilage in MR Images*, Proceedings of SPIE, pp 1484-1490, 2005.

Erik B. Dam, Jenny Folkesson, Paola Pettersen and Claus Christiansen, *Semi-Automatic Knee Cartilage Segmentation*, Proceedings of SPIE, 2006.

Erik B. Dam, Jenny Folkesson, Paola Pettersen and Claus Christiansen, *Automatic Cartilage Thick-*

*ness Quantification using a Statistical Shape Model*, MICCAI Joint Disease Workshop, 2006.

Erik B. Dam, Jenny Folkesson, Marco Loog, Paola Pettersen and Claus Christiansen, *Efficient Automatic Cartilage Segmentation*, MICCAI Joint Disease Workshop, 2006.

Arish A. Qazi, Ole Fogh Olsen, Erik B. Dam, Jenny Folkesson, Paola Pettersen and Claus Christiansen, *Automatic Quantification of Knee Cartilage Homogeneity*, MICCAI Joint Disease Workshop, 2006.

## Peer-Reviewed Conference Abstracts

Jenny Folkesson, Ole Fogh Olsen, Erik B. Dam, Paola Pettersen and Claus Christiansen, *Improving Automatic Tibial Medial Cartilage Segmentation by Incorporating Femoral Cartilage Compartment*, Proc. Intl. Soc. Mag. Res. Med., 2006.

Jenny Folkesson, Erik B. Dam, Ole Fogh Olsen, Paola Pettersen and Claus Christiansen, *Robust automatic estimation of articular cartilage surface area from knee MRI*, Osteoarthritis & Cartilage, Supplement, 2006.

Jenny Folkesson, Erik B. Dam, Ole Fogh Olsen, Paola Pettersen and Claus Christiansen, *Automatic volume estimation of articular cartilage from low-field knee MRI*, Osteoarthritis & Cartilage, Supplement, 2006.

Jenny Folkesson, Erik B. Dam, Ole Fogh Olsen, Paola Pettersen and Claus Christiansen, *Automatic cartilage volume estimation from low-field knee MRI: a longitudinal study*, Osteoarthritis & Cartilage, Supplement, 2006.

Jenny Folkesson, Erik B. Dam, Ole Fogh Olsen, Paola Pettersen and Claus Christiansen, *Robust Volume Estimation of Articular Cartilage from Knee MR Scans*, Osteoarthritis & Cartilage, supplement, 2005.

Jenny Folkesson, Erik B. Dam, Ole Fogh Olsen, Paola Pettersen and Claus Christiansen, *Automatic Quantification of Articular Cartilage from Knee MR Scans Using Surface Smoothness as Osteoarthritis Indicator*, Osteoarthritis & Cartilage, supplement, 2005.

Erik B. Dam, Paola Pettersen, Jenny Folkesson and Claus Christiansen, *Automatic Quantification of Cartilage Thickness from MRI for Monitoring Progression of Osteoarthritis - a Longitudinal Study*, Osteoarthritis & Cartilage, supplement, 2006.

Erik B. Dam, Paola Pettersen, Jenny Folkesson and Claus Christiansen, *Is Cartilage Thinning during Osteoarthritis Focal or Global?*, Osteoarthritis & Cartilage, supplement, 2006.

Arish A. Qazi, Erik B. Dam, Paola Pettersen, Ole Fogh Olsen, Jenny Folkesson, Claus Christiansen and Morten A. Karsdal, *Is Diseased Cartilage More Homogenous Than Healthy Cartilage?*, Osteoarthritis & Cartilage, supplement, 2006.

Erik B. Dam, Jenny Folkesson, Paola Pettersen and Claus Christiansen, *Automatic Cartilage Thickness Quantification from Knee MRI*, Osteoarthritis & Cartilage, Supplement, 2005.

## Patents

Erik B. Dam, Jenny Folkesson, Paola Pettersen, Ole Fogh Olsen, Mads Nielsen and Claus Christiansen, *Automatic Quantification of a Pathology Indicating Measure from Cartilage Scan Data*, patent number PCT/EP2006/008606. World Patent submitted 2006.

Erik B. Dam, Jenny Folkesson, Paola Pettersen, Ole Fogh Olsen, Mads Nielsen and Claus Christiansen, *Automatic Quantification of a Pathology Indicating Measure from Cartilage Scan Data*, patent number GB 0521640.3. Submitted at British Patent Agency 2005.

## **Other Qualifications**

European driver's licence (car)

PADI Open water diver certificate

Swedish hunter's licence