

Tali Dekel

Postdoctoral Associate @ MIT

Affiliation



Contact

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Languages

Hebrew mother tongue
English fluency

Computer skills

♥ Matlab
C, C++, Mathematica

Research Interest

Computer vision, image processing, multi-camera systems, motion analysis, 3D reconstruction, computational photography.

Education

2014–Present **Postdoctoral Associate**

Massachusetts Institute of Technology, Cambridge

Host: Prof. William T. Freeman

2009–2015 **Ph.D. Electrical Engineering**

Tel Aviv University, Israel.

Direct track towards a Ph.D. in computer vision.

Thesis: From Camera-Array to CrowdCam

Advisors: Prof. Shai Avidan and Prof. Yael Moses

2007–2009 **M.Sc. Electrical Engineering, cum laude**

Tel Aviv University, Israel.

Direct track toward an M.Sc. in computer vision and image processing.

Advisors: Prof. Yael Moses and Prof. Nahum Kiryati

2004–2007 **B.Sc. Electrical Engineering, cum laude**

Tel Aviv University, Israel.

Major in signal processing, computers and biomedical engineering.

Experience

2007–2014 **Teaching Assistant**

Tel Aviv University, Israel.

Course: "Statistical Signal Processing", 4th-year EE students.

Lecturer: Prof. Arie Yeredor

2010 **Intern**

Disney Research, Walt Disney Company, ETH University, Zurich

Internship in computer vision.

Host: Prof. Wojciech Matusik.

2010 **Teaching Assistant**

The Interdisciplinary Center, Herzeliya, Israel

Course: "Computer Graphics.", CS students.

Lecturer: Prof. Arik Shamir

2010 **Research Assistant**

Vision and Image Analysis (VIA) lab, Tel Aviv University

Part of the direct M.Sc. program.

2007 **Lab Director**

Tel Aviv University, Israel.

Instructor in an advanced lab in digital signal processing.

2006–2007 **Teaching Assistant**

Tel Aviv University, Israel.

Course: "Introduction to Electrical Circuits and Systems." EE students.

2005–2006 **Logic Designer**

Dune Networks, Israel.

Logic designer on the VLSI team.

Awards

- 2014 **Rothschild Postdoctoral Fellowship**
[Yad Hanadiv](#)
- 2014 **National Postdoctoral Award for Advancing Women in Science**
[The Weizmann Institute](#)
- 2014 **The Council for Higher Education (VATAT) Postdoctoral Fellowship**
- 2013 **Prof. Norman W. Rosenberg Memorial Prize**
[Tel Aviv University](#)
- 2009 **Excellence scholarship of Tel Aviv University's School of Electrical Engineering**
- 2005 **The Intel Excellence Award for B.Sc. in Electrical Engineering**
- 2005 **RAD scholarship for B.Sc. in Electrical Engineering**

Inthe Media

- 2012 **Interview on Photo Sequencing**
[VideoLectures.NET Blog](#)
<http://blog.videolectures.net/tali-basha-from-tel-aviv-university-on-photo-sequencing-israel-and-research-in-general/>
- 2012 **Oral presentation on Photo Sequencing.**
[European Conference on Computer Vision \(ECCV\)](#)
http://videolectures.net/eccv2012_basha_photo/
- 2011 **Oral presentation on Stereo Carving.**
[International Conference on Computer Vision \(ICCV\)](#)
<https://www.youtube.com/watch?v=FYqEk9qa8H4>

Publications

Journals

IJCV and PAMI are the top two peer-reviewed journals in computer vision.

TOG is the foremost peer-reviewed journal in graphics field, with acceptance rate of 20%.

Revealing and Modifying Non Local Variations in a Single Image

Tali Dekel, Tomer Michaeli, Michal Irani, William T Freeman

To appear in ACM Transactions on Graphics (TOG) special issue. Proc. SIGGRAPH Asia (2015). 2015

Deviation Magnification: Revealing Departures from Ideal Geometries

Neal Wadhwa, Tali Dekel, Donglai Wei, Frédo Durand, William T Freeman

To appear in ACM Transactions on Graphics (TOG) special issue. Proc. SIGGRAPH Asia (2015). 2015

Mutual Nearest Neighbors for Robust Template Matching

Tal Dekel, Shaul Oron, Shai Avidan

In preparation. Pattern Analysis and Machine Intelligence, IEEE Transactions on (2015). 2015

Photo Sequencing

Tali Dekel, Yael Moses, Shai Avidan

International Journal of Computer Vision (IJCV), Special Edition 110.3 (2014) pp. 275–289. Springer US, 2014

Multi-view scene flow estimation: a view centered variational approach

Tali Dekel, Yael Moses, Nahum Kiryati

International Journal of Computer Vision (IJCV) 101.1 (2013) pp. 6–21. Springer US, 2013

Stereo seam carving: a geometrically consistent approach

T Dekel Dekel, Yael Moses, Shai Avidan

Pattern Analysis and Machine Intelligence, IEEE Transactions on 35.10 (2013) pp. 2513–2525. IEEE, 2013

International conferences

CVPR, ICCV and ECCV are the top conferences in computer vision, with an acceptance rate of 20%-25%.

The acceptance rate for Oral presentation is 3%-4% of the submitted papers.

Best-Buddies Similarity for Robust Template Matching

Tali Dekel, Shaul Oron, Michael Rubinstein, Shai Avidan, William T Freeman

Proc. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2015

Space-time tradeoffs in photo sequencing

Tali Dekel, Yoram Moses, Shai Avidan

Proc. International Conference on Computer Vision (ICCV), 2013

Structure and motion from scene registration

Tali Dekel, Shai Avidan, Alexander Hornung, Wojciech Matusik

Proc. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2012

Photo sequencing

Tali Dekel, Yael Moses, Shai Avidan

Oral in European Conference of Computer Vision (ECCV), 2012

Racing Bib Number Recognition

Idan Ben-Ami, Tali Dekel, Shai Avidan

BMVC-British Machine Vision Conference, 2012

Geometrically consistent stereo seam carving

Tali Dekel, Yael Moses, Shai Avidan

Oral in International Conference on Computer Vision (ICCV), 2011

Multi-view scene flow estimation: A view centered variational approach

Tali Dekel Yael Moses and Nahum Kiryati

Proc. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2010