Thijs Roumen - CV

Assistant Professor IS and CS, Cornell Tech
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Academic Affiliations

Cornell Tech, NYC, USA   **2022-now**
Assistant Professor (Tenure-Track) in Information Science, Computer Science field member

Education

Hasso Plattner Institute, Germany   **2014-2023**
Ph.D. in Human Computer Interaction (**summa cum laude**)
Advisor: Patrick Baudisch, external reviewers: Albrecht Schmidt, Takeo Igarashi
Internal reviewers: Robert Hirschfeld, Christoph Meinel, Felix Naumann

University of Southern Denmark, Denmark   **2011-2013**
MSc. in IT Product Design
Thesis advisor: Stephan Wensveen

Eindhoven University of Technology, Netherlands   **2007-2011**
BSc. in Industrial Design

Full papers at CHI/UIST/SCF top-tier HCI conferences

[17]   Mustafa Doga Dogan, Vivian Hsinyueh Chan, Richard Qi, Grace Tang, **Thijs Roumen** and Stefanie Mueller. StructCode: Leveraging Fabrication Artifacts to Store Data in Laser-Cut Objects. **SCF23**

[16]   **Thijs Roumen**, Thijs Roumen, Ingo Apel, Thomas Kern, Martin Taraz, Ritesh Sharma, Ole Schlueter, Jeffrey Johnson, Dominik Meier, Conrad Lempert, Patrick Baudisch. Structure-Preserving Editing of Plates and Volumes for Laser Cutting. **SCF22**

[15]   Muhammad Abdullah, Romeo Sommerfeld, Bjarne Sievers, Leonard Geier, Jonas Noack, Marcus Ding, Christoph Thieme, Laurenz Seidel, Lukas Fritsche, Erik Langenhan, Oliver Adameck, Moritz Dzingel, Thomas Kern, Martin Taraz, Conrad Lempert, Shohei Katakura, Hany Ehassany, **Thijs Roumen**, and Patrick Baudisch. HingeCore: Laser-Cut Foamcore for Fast Assembly. **UIST22**

[14]   Keunwoo Park, Conrad Lempert, Muhammad Abdullah, Shohei Katakura, Jotaro Shigeyama, **Thijs Roumen**, and Patrick Baudisch. FoolProofJoint: Reducing Assembly Errors of Lasr Cut 3D Models by Means of Custom Joint Patterns. **CHI22**

[13]   Muhammad Abdullah, Romeo Sommerfeld, Laurenz Seidel, Jonas Noack, Ran Zhang, **Thijs Roumen** and Patrick Baudisch. Roadkill: Fast-to-Assemble Layouts for Laser-Cut Objects. **UIST21**
Best Paper Honorable Mention (best 5%)

[12]   **Thijs Roumen**, Conrad Lempert, Ingo Apel, Erik Brendel, Markus Brand, Laurenz Seidel, Lukas Rambold, and Patrick Baudisch. AutoAssembler: Automatic Reconstruction of Laser-Cut 3D Models. **UIST21**

[11]   Muhammad Abdullah, Martin Taraz, Yannis Kommana, Shohei Katakura, Robert Kovacs, Jotaro Shigeyama, **Thijs Roumen**, and Patrick Baudisch. fastForce: Real-Time Reinforcement of Laser-Cut Structures. **CHI21**

[10]   **Thijs Roumen**, Yannis Kommana, Ingo Apel, Conrad Lempert, Markus Brand, Erik Brendel, Laurenz Seidel, Lukas Rambold, Carl Goedecken, Pascal Crenzin, Ben Hurdelhey, Muhammad Abdullah, and Patrick Baudisch. Assembler^3: 3D Reconstruction of Laser-Cut Models. **CHI21**

[9]   **Thijs Roumen**, Ingo Apel, Jotaro Shigeyama, Abdullah Muhammad, and Patrick Baudisch. Kerf-Canceling Mechanisms: Making Laser-Cut Mechanisms Operate across Different Laser Cutters. **UIST20**

[8]   **Thijs Roumen**, Jotaro Shigeyama, Julius Cosmo Romeo Rudolph, Felix Grzelka, and Patrick Baudisch. SpringFit: Joints and Mouns that Fabricate on Any Laser-Cutter. **UIST19**

[7]   **Thijs Roumen**, Willie Mueller and Patrick Baudisch. grafter: remxing 3D printed Machines. **CHI18**

[6]   **Thijs Roumen**, Bastian Kruck, Tobias Duerschmid, Tobias Nack, Patrick Baudisch. Mobile Fabrication. **UIST16**

[5]   Patrick Baudisch, Arthur Silber, Yannis Kommana, Milan Gruner, Ludwig Wall, Kevin Reuss, Lukas Heilmann, Robert Kovacs, Daniel Rechlitz and **Thijs Roumen**. Kyub: A 3D Editor for Modeling Sturdy Laser-Cut Objects. **CHI19**

[4]   Oliver Schneider, Jotaro Shigeyama, Robert Kovacs, **Thijs Roumen**, Sebastian Marwecki, Nico Boeckhoff, Daniel Amadeus Glockner, Jonas Bounama and Patrick Baudisch. DualPanto: A Haptic Device that Enables Blind Users to Continuously Interact with Virtual World. **UIST18**

[3]   Saiganesh Swaminathan, **Thijs Roumen**, Robert Kovacs, David Stangl, Stefanie Mueller, Patrick Baudisch. Linespace: A Sensemaking Platform for the Blind. **CHI16**

[2]   Lung-Pan Cheng, **Thijs Roumen**, Hannes Rantzsch, Sven Köhler, Patrick Schmidt, Robert Kovacs, Johannes Jasper, Jonas Kemper, Patrick Baudisch. TurkDeck: Physical Virtual Reality Based on People. **UIST15**

[1]   Jessalyn Alvina, Shengdong Zhao, **Thijs Roumen**, Simon T Perrault, Maryam Azh, Morten Fjeld. Omnivib: Towards cross-body spatiotemporal vibrotactile notifications for mobile phones. **CHI15**

Department Service

Committee Member
2023-24 PhD life committee Cornell Tech
2023-24 Initiator and organiser of Jr. Faculty Retreat
2022 Graduate Studies Committee IS
2022-24 PhD admissions in IS
2022 PhD admissions in CS

Academic Community Service

Committees
Steering Committee ACM SCF 2024 +
General Chair ACM SCF 2023
Subcommittee Chair DIS 2024
PC member UIST2021-23, CHI2023-24, NSF 2022-23, DIS 2023, CSCW2022, MobileHCI2021, TEI2021-22, DesForm 2019
Best Paper Committee UIST2022-23, DIS 2023, CHI2024
Demo Chair UIST 2023-24
Student Innovation Contest Chair UIST 2022
Local Arrangement Chair UIST 2018

Reviewer
CHI (2015-2024), UIST (2015-2023), and various other ACM conferences (over 300 reviews in total)

Special Recognitions for reviews (25 in total)
CHI24, DIS23(2x), CHI23, DIS22, 2x CHI22, UIST21, 2x CHI21, 3x UIST20, CHI Play 20, 2x CHI20, 2x CHI18, 2x CHI15, 2x CHI16, CSCW15, CHI Play 15, CHI Play 14

Community
Chairman of German CHI party (16,17,18,19), Moderator of CHI meta (2019 - now)

Invited Talks

[41] Cornell high-school Programming Competition
[40] HPI NYC breakfast talks
[39] Cornell Tech, NYC
[38] University of Montreal
[37] Cornell, Ithaca
[36] UIUC
[35] Stanford University
[34] University of Michigan
[33] UCSD
[32] National Taiwan University
[31] UCLA
[30] Harvard University
[29] University of Washington, Seattle
[28] MIT CSAIL
[27] MIT Center for Bits and Atoms
[26] MIT Media Lab
[25] Carnegie Mellon Univesity, Pittsburgh
[24] University of Chicago
[23] University of Toronto, Canada
[22] University College London, UK
[21] University of Maryland
[20] University of Tokyo
[19] National University of Singapore
[18] University of Colorado, Boulder
[17] SIGCHI Paris
[16] KAIST
[15] MIT Vision and Graphics seminar
[14] University of California Merced
[13] University of Waterloo
[12] University of Copenhagen, Denmark
[11] University of Calgary
[10] University of Bristol, UK
[9] Darthmouth College
[8] A&M University of Texas
[7] Kolding Design School tech seminar
[6] Dagstuhl Seminar on Computational Aspects of Fabrication
[5] Saarland University, Germany
[4] Ulm University, Germany
[3] University of Cape Town
[2] LMU Munchen
[1] Hasselt University

Teaching

Primary Instructor at Cornell Tech
[4] Digital Fabrication, ±50 master students (enrollment open)   spring 2024
[3] HCI and Design, 110 master students   fall 2023
[2] Digital Fabrication, 50 master students   spring 2023
[1] HCI and Design, 200 master students   fall 2022

Primary Instructor (during PhD)
[2] Algorithmic Folding, master course   winter 2021
[1] Algorithmic Folding, master course   winter 2020

Teaching Assistant (during PhD)
[7] Building Interactive Systems, bachelor course   summer 2020 + 2021
[5] Programming Technology 1, bachelor course   winter 2019
[4] Designing Interactive Systems, bachelor course   summer 2018 + 2019
[2] Human Computer Interaction 1, bachelor course   winter 2015 + 2016

Created Courses (before PhD)
[2] Introduction to Arduino Programming, master+bachelor   summer 2013
[1] Introduction to Arduino Programming, master+bachelor   winter 2013

Funding

Active
XR Collaboratory Prototyping Grant (25k)   summer 2024

Mentoring

PhD students (primary advisor)
[4] Zekun Chang   2021 -
[3] Shuo Feng   2023 -
[2] Tobias Weinberg   2023 -
[1] Amrit Kwatra   2022 -

PhD students (co-advisor)
[4] Ricardo Enrique Gonzalez   2022 -
[3] Ritik Batra   2023 -
[2] Bo Liu   2023 -
[1] Ilan Mandel   2022 -

Master thesis committee
[3] Lewis Fitzgerald Campbell   2023
[2] Henry Sanchez   2023
[1] Jun Han Kim   2023

Master student independent studies (2 days per week, one semester)
[3] William Reed   2024
[2] Leonardo Bueno   2024
[1] Yixuan Wang   2024

Master thesis students (6 months fulltime-primary advisor)

[7] Ingo Apel	2020	[3] Daniel Amadeus Glockner	2019
[6] Nico Böckhoff	2020	[2] Yannis Kommana	2018
[5] Jonas Bounama	2019	[1] Willi Mueller	2016
[4] Lukas Wagner	2019		

Bachelor thesis students (1 year fulltime-primary advisor)

[6] Tobias Weinberg   2023 (Technion, mechE)
[5] Maia Hirsch   2023 (Technion, mecE)
[4] Jeffrey Johnson   2020
[3] Benjamin Daniel   2020
[2] Ronja Wagner   2020
[1] Ole Schlueter   2020

Research intern (1 year part-time (2 days a week)

[1] Ritik Batra   2022/2023

Research intern (3 months fulltime-primary advisor)

[7] Justin Moore	2023	[3] Ritesh Sharma	2020
[6] Fahad Tahir	2023	[2] Vinayak Pushar	2019
[5] Albina Krasykova	2023	[1] Ingo Apel	2019
[4] Romeo Sommerfeld	2021		

Master Project Students (6 months--3 days per week)

[8] Laurenz Seidel	2020	[4] Conrad Lempert	2019
[7] Erik Brendel	2020	[3] Ingo Apel	2019
[6] Lukas Rambold	2020	[2] Carl Goedecken	2019
[5] Markus Brand	2020	[1] Pascal Crenzin	2019

Research project students (2 days per week for a semester)

[22] Nicholas Burka	2022	[11] Philipp Hoberg	2017+18
[21] Julian Arnold	2021	[10] Melvin Witte	2016
[20] Tarik Alnawa	2020	[9] Kieran Lomas	2016
[19] Hendrik Woehlert	2020	[8] Fabian Pottbaecker	2016
[18] Laura Meister	2020	[7] Andreas Burmeister	2016
[17] Ingo Apel	2019+20	[6] Yannis Komana	2016
[16] Julius Rudolph	2019	[5] Tobias Nack	2015
[15] Felix Grzelka	2019	[4] Tobias Duerschmid	2015
[14] Alexander Preuss	2018	[3] Bastian Kruck	2015
[13] Jonathan Janetzki	2018	[2] Pascal Crenzin	2015
[12] Ivan Illic	2017+18	[1] Jonathan Herdt	2015

Awards/Honors

[7] Nominated for ACM Dissertation Award (announcement June 2024)
[6] Cornell Tech most dedicated faculty award (voted by students)
[5] Summa Cum Laude PhD graduation (best 1% of graduates)
[4] Honorable Mention Award UIST'21 (best 5% of papers)
[3] Social Design Award 2010 from City of Eindhoven for *the Wiggle*
[2] Representng TU/E at the Dutch Design Week 2010
[1] Nomination for Sønderborg Entrepreneurship Award 2012
[*] Major Marathon Finisher: NYC 2018, Berlin 2019, and Chicago 2023 with a best time of 02:51:22

Research Internships

National University of Singapore, Singapore   **2014**
Advisor: Shengdong Zhao

Tsukuba University, Japan   **2010**
Advisor: Seunghee Lee

Non-Academic affiliations

DKNL Design, Denmark   **2013-2014**
Interaction design consultant
Concept and prototype development, main client: LEGO

Stik Design, Denmark, Netherlands   **2010-2013**
Founder and Owner
Product Design and Development.
Products: the Wiggle (playground), Kuchi (promotional concept for entertainment parks), Yubi (promotional concept for festivals) and hourly paid design work

EST Fellenoord, Netherlands   **2010-2011**
Board position as Commissioner Internal Affairs
For a year I was boardmember of this student tennis association with over 400 members, responsible for internal communication and chairing the internal committees + organizing the bar and events

Brabant Center of Entrepreneurship, Netherlands   **2010-2011**
Completed the Technology Entrepeneurship certificate program