

Partners in Science 2016

Academic Studies using WorldViz Technology

October 2015 - February 2017



WorldViz is proud to present its second and latest Partners in Science Report: In 2016, more than 90 published research studies utilized a WorldViz VR solution. Our first [WorldViz Partners in Science Report](#) from 2015 highlighted 70 previously published studies.

Universities around the world are using cutting-edge WorldViz VR solutions to broaden the horizon of scientific understanding. Virtual reality is a powerful research tool allowing for unprecedented experimental control within fully immersive stimuli. This WorldViz Partners in Science Report highlights published studies from our partners - top scientific researchers embracing virtual reality to advance their field.

The 2016 report is organized by scientific field: *Architecture, Computer Science, Engineering, Neuroscience, Physiology, Psychology*.

Links to the published journal articles for each study along with the authors are provided below. As some of the papers are hosted on SpringerLink and IEEE, you'll need to use your university license to access them.

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Second University of Naples

Department of Architecture and Industrial Design

Department of Psychology

Researcher: Luigi Maffei | Massimiliano Masullo | Aniello Pascale | Gennaro Ruggiero

Virginia Puyana Romero

Title of Paper/Research: Immersive virtual reality in community planning: Acoustic and visual congruence of simulated vs real world

Journal: Sustainable Cities and Society

Date: June, 2016

Second University of Naples

Department of Architecture and Industrial Design

Researcher: Like Jiang | Massimiliano Masullo | Luigi Maffei

Title of Paper/Research: Effect of odour on multisensory environmental evaluations of road traffic

Journal: Environmental Impact Assessment Review

Date: June, 2016

University of Sheffield

School of Architecture

Università degli Studi della Campania

Technical physics

Second University of Naples

Acoustics and Environmental Control

University of Michigan

Department of Biostatistics

Researcher: Francesco Aletta | Massimiliano Masullo | Luigi Maffei | Jian Kang

Title of Paper/Research: The effect of vision on the perception of the noise produced by a chiller in a common living environment

Journal: Noise Control Engineering Journal

Date: May, 2016

University of Hamburg

Human Computer Interaction

University of Central Florida

Synthetic Reality Lab

University Medical Center Hamburg-Eppendorf

*Department of Neurophysiology and
Pathophysiology*

Researcher: Omar Janeh | Eike Langbehn | Frank Steinicke | Gerd Bruder

Alessandro Gulberti | Monika Poetter-Nerger

Title of Paper/Research: [Walking in Virtual Reality: Effects of Manipulated Visual Self-Motion on Walking Biomechanics](#)

Journal: ACM Transactions on Applied Perception (TAP)

Date: January, 2017

Rhodes College

*Department of Mathematics and Computer
Science*

Researcher: Preston Tunnell Wilson | William Kalescky | Ansel MacLaughlin | Betsy Williams

Title of Paper/Research: [VR locomotion: walking > walking in place > arm swinging](#)

Journal: Proceedings of the 15th ACM SIGGRAPH Conference on Virtual-Reality Continuum and Its Applications in Industry

Date: December, 2016

Bowie State University

Computer Science

Researcher: Marvin Conn | Sharad Sharma

Title of Paper/Research: [Immersive Telerobotics using the Oculus Rift and the 5DT Ultra Data Glove](#)

Journal: Proceedings of IEEE International Conference on Collaboration Technologies and Systems (CTS 2016)

Date: November, 2016

University of Hamburg

Human Computer Interaction

Researcher: Paul Lubos | Gerd Bruder | Oscar Ariza | Frank Steinicke

Title of Paper/Research: [Touching the Sphere: Leveraging Joint-Centered Kinespheres for Spatial User Interaction](#)

Journal: Proceedings of the 2016 Symposium on Spatial User Interaction

Date: October, 2017

University of Hamburg

*Human-Computer Interaction Research Group,
Department of Informatics*

Researcher: Frank Steinicke

Title of Paper/Research: [To Touch or Not to Touch?](#)

Journal: Being Really Virtual

Date: October, 2016

University of Hamburg

*Human-Computer Interaction Research Group,
Department of Informatics*

Researcher: Frank Steinicke

Title of Paper/Research: [First Steps Toward Being Really Virtual](#)

Journal: Being Really Virtual

Date: October, 2016

University of Hamburg

*Human-Computer Interaction Research Group,
Department of Informatics*

Researcher: Frank Steinicke

Title of Paper/Research: [Unlimited Walking: One Small Step for a Man](#)

Journal: Being Really Virtual

Date: October, 2016

University College London

Institute of Cognitive Neuroscience

University of London

Department of Computing

Researcher: Paul A. G. Forbes | Xueni Pan | Antonia F. de C. Hamilton

Title of Paper/Research: [Reduced Mimicry to Virtual Reality Avatars in Autism Spectrum Disorder](#)

Journal: Journal of Autism and Developmental Disorders

Date: September, 2016

Michigan Technological University

Department of Computer Science

Researcher: Bochao Li | Anthony Nordman | James Walker | Scott A. Kuhl

Title of Paper/Research: [The effects of artificially reduced field of view and peripheral frame stimulation on distance judgments in HMDs](#)

Journal: Proceedings of the ACM Symposium on Applied Perception

Date: July, 2017

University of Minnesota

Department of Computer Science

Researcher: Anicia Dcosta

Title of Paper/Research: [Utilizing the Redirected Walking Algorithm to Avoid User-Obstacle Collisions](#)

Journal: none - Thesis

Date: July, 2016

University of Texas at Austin

Institute for Neuroscience

Universidad Autónoma de Madrid

Facultad de Psicología

University of Bath

Department of Computer Science

Center for Perceptual Systems

Researcher: Chia-Ling Li | M. Pilar Aivar | Dmitry M. Kit | Matthew H. Tong | Mary M. Hayhoe

Title of Paper/Research: [Memory and visual search in naturalistic 2D and 3D environments](#)

Journal: Journal of Vision

Date: June, 2016

Slovak Academy of Sciences

Institute of Informatics

Researcher: Eva Pajorova | Ladislav Hluchy

Title of Paper/Research: [Virtual Reality Pave the Way for Better Understand Untouchable Research Results](#)

Journal: Augmented Reality, Virtual Reality, and Computer Graphics

Date: June, 2016

Salford Innovation Research Centre (SIRC)

School of Computing, Science and Engineering

Università di Pisa

University of Washington

*Mechanical Engineering School of Science,
Technology, Engineering & Mathematics*

Macquarie University

Department of Computing

Qatar University

Mechanical and Industrial Engineering

Researcher: Tauseef Gulrez | Alessandro Tognetti | Woon Jong Yoon | Manolya Kavakli
John-John Cabibihan

Title of Paper/Research: [A Hands-Free Interface for Controlling Virtual Electric-Powered Wheelchairs](#)

Journal: International Journal of Advanced Robotic Systems

Date: March, 2016

Rhodes College

Mathematics and Computer Science

Researcher: Preston Tunnel-Wilson

Title of Paper/Research: [Comparing Various Locomotion Methods within Virtual Environments](#)

Journal: none - Thesis

Date: 2016

Bowie State University

Computer Science

Researcher: Sharad Sharma | James Stigall | Sarika Rajeev

Title of Paper/Research: [Game-Theme Based Instructional Module for Teaching Object Oriented Programming](#)

Journal: Proceedings of the IEEE International Conference on Computational Science and Computational Intelligence (CSCI)

Date: December, 2015

Vanderbilt University

*Department of Electrical Engineering and
Computer Science
Vanderbilt Vision Research Center
Department of Psychology*

Researcher: Richard Paris | Bobby Bodenheimer | Randolph Blake

Title of Paper/Research: Does direction of walking impact binocular rivalry between competing patterns of optic flow?

Journal: Attention, Perception, & Psychophysics

Date: February, 2017

The Ohio State University

*Department of Mechanical and Aerospace
Engineering
Department of Psychology*

Researcher: Scott Schnelle | Junmin Wang | Haijun Su | Richard Jagacinski

Title of Paper/Research: A Driver Steering Model With Personalized Desired Path Generation

Journal: IEEE Transactions on Systems, Man, and Cybernetics: Systems

Date: January, 2017

University of Sassari

Engineering Unit, POLCOMING Department
**Interuniversity Center of Bioengineering of
the Human Neuromusculoskeletal System**

Researcher: Agnese Peruzzi | Information | Ignazio Roberto Zarbo | Andrea Cereatti | Ugo Della Croce | Anat Mirelman

Title of Paper/Research: An innovative training program based on virtual reality and treadmill: effects on gait of persons with multiple sclerosis

Journal: Disability and Rehabilitation

Date: November, 2016

Shantou University

Department of Mechatronics Engineering

China University of Manitoba

Department of Mechanical Engineering

Researcher: Hao Song | Qingjin Peng | Jian Zhang | Peihua Gu

Title of Paper/Research: [A VR-based interactive system to improve users' involvement in OAP development](#)

Journal: Procedia CIRP 56

Date: November, 2016

Deakin University

School of Engineering

Monash University

Department of Obstetrics and Gynaecology

Researcher: Syafizwan Faroque | Ben Horan | Michael Mortimer | Mulyoto Pangestu

Title of Paper/Research: [Large-scale Virtual Reality micro-robotic cell injection training](#)

Journal: World Automation Congress (WAC), 2016

Date: October, 2016

RWTH Aachen University

IMA/ZLW & IfU

Researcher: Max Hoffmann | Katharina Schuster | Daniel Schilberg | Sabina Jeschke

Title of Paper/Research: [Bridging the Gap Between Students and Laboratory Experiments](#)

Journal: Automation, Communication and Cybernetics in Science and Engineering 2015/2016

Date: October, 2016

RWTH Aachen University

IMA/ZLW & IfU

Researcher: Max Hoffmann | Lana Plumanns | Laura Lenz | Katharina Schuster | Tobias Meisen | Sabina Jeschke

Title of Paper/Research: [Enhancing the Learning Success of Engineering Students by Virtual Experiments](#)

Journal: Automation, Communication and Cybernetics in Science and Engineering 2015/2016

Date: October 29, 2016

Indian Institute of Technology Gandhinagar

Electrical Engineering Department

Researcher: Selvia Kuriakose | Uttama Lahiri

Title of Paper/Research: [Design of a Physiology-sensitive VR-based Social Communication Platform for Children with Autism](#)

Journal: IEEE Transactions on Neural Systems and Rehabilitation Engineering

Date: September, 2016

King Abdulaziz University

Department of Computer Science, Faculty of Computing and Information Technology

Effat University

*Department of Computer Science,
College of Engineering*

Researcher: Wadee S. Alhalabi

Title of Paper/Research: [Virtual reality systems enhance students' achievements in engineering education](#)

Journal: Behaviour & Information Technology

Date: July, 2016

Vanderbilt University

*Department of Electrical Engineering and
Computer Science*

University of the South

Researcher: Bobby Bodenheimer | Yiming Wang | Divine Maloney | John Rieser

Title of Paper/Research: [Induction of linear and circular vection in real and virtual worlds](#)

Journal: IEEE Xplore

Date: July, 2016

Indian Institute of Technology Gandhinagar

Department of Electrical Engineering

All India Institute of Medical Sciences

Department of Neurology

Physiotherapy College Paraplegia Hospital

**Advanced Medical Research Institute
of Neurosciences**

Department of Neurorehabilitation

Researcher: Ashish Dhiman | Dhaval Solanki | Ashu Bhasin | Anjali Bhise | Abhijit Das
Uttama Lahiri

Title of Paper/Research: [Design of adaptive haptic-enabled virtual reality based system for
upper limb movement disorders: A Usability Study](#)

Journal: Biomedical Robotics and Biomechatronics (BioRob)

Date: July, 2016

Moscow State Technical University of CA

Aviareal / Skolkovo

Researcher: Andrey L. Gorbunov | Boris Eliseev | Andrey Kaurov

Title of Paper/Research: [Augmented reality for driving simulators](#)

Journal: SAI Computing Conference (SAI), 2016

Date: July, 2016

The Hyogo institute of Assistive Technology

Robot Rehabilitation Center

Hiroshima University

Graduate School of Engineering

Institute of Engineering

Ibaraki University

College of Engineering

Hyogo Rehabilitation Center

Kinki Gishi Corporation

Researcher: Go Nakamura | Taro Shibasaki | Futoshi Mizobe | Akito Masuda | Yuichiro Honda
Takaaki Chin | Toshio Tsuji

Title of Paper/Research: [A High-fidelity Virtual Training System for Myoelectric Prostheses Using an Immersive HMD](#)

Journal: i-CREATE 2016 Proceedings of the international Convention on Rehabilitation Engineering & Assistive Technology

Date: July, 2016

University of Bern

Institute of Psychology

Center for Cognition, Learning and Memory

ARTORG Center for Biomedical Engineering

Research, Gerontechnology & Rehabilitation

Researcher: Wilhelm K. Klatt | Alvin Chesham | Janek S. Lobmaier

Title of Paper/Research: [Putting Up a Big Front: Car Design and Size Affect Road-Crossing Behaviour](#)

Journal: PLoS ONE

Date: July, 2016

Hanyang University

Division of Computer Science and Engineering

National Rehabilitation Center

Department of Rehabilitation Medicine

Researcher: Woncheol Jang | Joon-Ho Shin | Mingyu Kim | Kwanguk (Kenny) Kim

Title of Paper/Research: [Human field of regard, field of view, and attention bias](#)

Journal: Computer Methods and Programs in Biomedicine

Date: July, 2016

Rochester Institute of Technology

*Kate Gleason College of Engineering
Chester F. Carlson Center for Imaging Science*

Researcher: Erik Messier | Jascha Wilcox | Alexander Dawson-Elli | Gabriel Diaz
Christian A. Lintel

Title of Paper/Research: [An Interactive 3D Virtual Anatomy Puzzle for Learning and Simulation - Initial Demonstration and Evaluation](#)

Journal: Medicine Meets Virtual Reality

Date: April, 2016

Salford Innovation Research Centre (SIRC)

School of Computing, Science and Engineering

Università di Pisa

University of Washington, Bothell

*Mechanical Engineering School of Science,
Technology, Engineering & Mathematics*

Macquarie University

Department of Computing

Qatar University

Mechanical and Industrial Engineering

Researcher: Tauseef Gulrez | Alessandro Tognetti | Woon Jong Yoon | Manolya Kavakli
John-John Cabibihan

Title of Paper/Research: [A Hands-Free Interface for Controlling Virtual Electric-Powered Wheelchairs](#)

Journal: International Journal of Advanced Robotic Systems

Date: March, 2016

Eindhoven University of Technology

*Department of Industrial Engineering &
Innovation Sciences*

Researcher: Peter Frumau

Title of Paper/Research: [The Scaling of Presence in Virtual Reality](#)

Journal: none - Thesis

Date: February, 2016

Indian Institute of Technology Gandhinagar

Electrical Engineering Department

Université Montpellier

*DEMAR (INRIA Sophia Antipolis), INRIA,
CNRS: UMR5506*

AMRI Institute of Neurosciences

Department of Neurorehabilitation

Researcher: Deepesh Kumar | Anirban Dutta | Abhijit Das | Uttama Lahiri

Title of Paper/Research: [SmartEye: Developing a Novel Eye Tracking System for Quantitative Assessment of Oculomotor Abnormalities](#)

Journal: IEEE Transactions on Neural Systems and Rehabilitation Engineering

Date: January, 2016

University of Nebraska at Omaha

Biomechanics Research Building

University of Nebraska Medical Center Omaha

*Department of Environmental, Agricultural and
Occupational Health, College of Public Health*

NASA Johnson Space Center

*Wyle Science, Technology and Engineering
Neuroscience Laboratories*

Researcher: Diderik Jan A. Eikema | Jung Hung Chien | Nicholas Stergiou | Sara A. Myers
Melissa M. Scott-Pandorf | Jacob J. Bloomberg | Mukul Mukherjee

Title of Paper/Research: [Optic flow improves adaptability of spatiotemporal characteristics during split-belt locomotor adaptation with tactile stimulation](#)

Journal: Experimental Brain Research

Date: November, 2015

University of Houston

*Department of Health and Human Performance
Center for Neuromotor and Biomechanics
Research
Center for Neuro-Engineering and
Cognitive Science*

Researcher: Rakshatha Kabbaligere | Beom-Chan Lee | Charles S. Layne

Title of Paper/Research: [Balancing sensory inputs: Sensory reweighting of ankle proprioception and vision during a bipedal posture task](#)

Journal: Gait & Posture

Date: February, 2017

University College London

Institute of Cognitive Neuroscience

Researcher: Joanna Hale | Madeleine E. M. Payne | Kathryn M. Taylor | Davide Paoletti
Antonia F. De

Title of Paper/Research: [The virtual maze: A behavioural tool for measuring trust](#)

Journal: none

Date: February, 2017

Wilfrid Laurier University

*Sun Life Financial Movement Disorders
Research and Rehabilitation Centre*

University of Waterloo

Department of Psychology

Researcher: Kaylena A. Ehgoetz Martens | Shannon C. Lefavre | Eric N. Beck | Rebecca Chow
Frederico Pieruccini-Faria | Colin G. Ellard | Quincy J. Almeida

Title of Paper/Research: [Anxiety provokes balance deficits that are selectively dopa-responsive in Parkinson's disease](#)

Journal: Neuroscience

Date: November, 2016

University of Leicester

Department of Neuroscience, Psychology and Behaviour

University of Manchester

Division of Neuroscience and Experimental Psychology

Researcher: Carlo De Lillo | Melissa Kirby | Daniel Poole

Title of Paper/Research: [Spatio-Temporal Structure, Path Characteristics, and Perceptual Grouping in Immediate Serial Spatial Recall](#)

Journal: Frontiers in Psychology

Date: November, 2016

Justus-Liebig-University

Experimental Psychology

TU Chemnitz

Institut für Physik

Queen's University

Centre for Neuroscience Studies

Justus-Liebig-University

Experimental Psychology

Researcher: Mathias Klinghammer | Immo Schütz | Gunnar Blohm | Katja Fiehler

Title of Paper/Research: [Allocentric information is used for memory-guided reaching in depth: A virtual reality study](#)

Journal: Vision Research

Date: November, 2016

University College London

Institute of Cognitive Neuroscience

Researcher: Joanna Hale | Antonia F. De C. Hamilton

Title of Paper/Research: [Testing the relationship between mimicry, trust and rapport in virtual reality conversations](#)

Journal: Scientific Reports

Date: October, 2016

University College London

Institute of Cognitive Neuroscience

University of London

Department of Computing

Researcher: Paul A. G. Forbes | Xueni Pan | Antonia F. de C. Hamilton

Title of Paper/Research: [Reduced Mimicry to Virtual Reality Avatars in Autism Spectrum Disorder](#)

Journal: Journal of Autism and Developmental Disorders

Date: September, 2016

University of Muenster

Institute of Psychology

Otto Creutzfeldt Center for Cognitive and Behavioral Neuroscience

Institute of Sport Science

Researcher: Benjamin Bolte | Marc de Lussanet | Markus Lappe

Title of Paper/Research: [Virtual reality system for the enhancement of mobility in patients with chronic back pain](#)

Journal: International Journal of Child Health and Human Development

Date: September, 2016

University of Bath

Department of Psychology

Max Planck Institute for Intelligent Systems

Perceiving Systems

University College London

Institute of Cognitive Neuroscience & Dept. Anatomy

Durham University

Department of Psychology Science Laboratories

Researcher: Karin Petrini | Andrea Caradonna | Celia Foster | Neil Burgess | Marko Nardini

Title of Paper/Research: [How vision and self-motion combine or compete during path reproduction changes with age](#)

Journal: Sci Rep

Date: July, 2016

University of Coimbra

Institute for Biomedical Imaging and Life Sciences, CNC.IBILI

CHUC

Department of Neurology

Researcher: Isabel C. Duarte | João Castelhana | Francisco Sales | Miguel Castelo-Branco

Title of Paper/Research: [The anterior versus posterior hippocampal oscillations debate in human spatial navigation: evidence from an electrocorticographic case study](#)

Journal: Brain and Behavior

Date: June, 2016

University of Texas at Austin

Institute for Neuroscience

Universidad Autónoma de Madrid

Facultad de Psicología

University of Bath

Department of Computer Science

Center for Perceptual Systems

Researcher: Chia-Ling Li | M. Pilar Aivar | Dmitry M. Kit | Matthew H. Tong | Mary M. Hayhoe

Title of Paper/Research: [Memory and visual search in naturalistic 2D and 3D environments](#)

Journal: Journal of Vision

Date: June, 2016

George Mason University

Department of Psychology

Georgetown University Medical Center

Department of Neuroscience

Researcher: Martin Wiener | Kelly Michaelis | James C. Thompson

Title of Paper/Research: [Functional correlates of likelihood and prior representations in a virtual distance task](#)

Journal: Human Brain Mapping

Date: May, 2016

Ludwig-Maximilians-Universität

Department Biologie II

Bernstein Center for Computational Neuroscience Munich

Researcher: Magdalena Kautzky | Kay Thurley

Title of Paper/Research: Estimation of self-motion duration and distance in rodents

Journal: The Royal Society

Date: May, 2016

Washington University in St. Louis

Department of Psychology

Knight Alzheimer's Disease Research Center

Hope Center for Neurological Disorders

Department of Neurology

Department of Radiology

Researcher: Samantha L. Allison | Anne M. Fagan | John C. Morris | Denise Head

Title of Paper/Research: Spatial Navigation in Preclinical Alzheimer's Disease

Journal: Journal of Alzheimer's Disease

Date: April, 2016

Rochester Institute of Technology

Chester F. Carlson Center for Imaging Science

University of Texas at Austin

Center for perceptual Systems

Researcher: Rakshit Kothari | Kamran Binaee | Jonathan S. Matthis | Gabriel J. Diaz
Reynold Bailey

Title of Paper/Research: Novel apparatus for investigation of eye movements when walking in the presence of 3D projected obstacles

Journal: Proceedings of the Ninth Biennial ACM Symposium on Eye Tracking Research & Applications

Date: March, 2016

Indian Institute of Technology Gandhinagar

Electrical Engineering Department

Université Montpellier

*DEMAR (INRIA Sophia Antipolis), INRIA,
CNRS: UMR5506*

AMRI Institute of Neurosciences

Department of Neurorehabilitation

Researcher: Deepesh Kumar | Anirban Dutta | Abhijit Das | Uttama Lahiri

Title of Paper/Research: [SmartEye: Developing a Novel Eye Tracking System for Quantitative Assessment of Oculomotor Abnormalities](#)

Journal: IEEE Transactions on Neural Systems and Rehabilitation Engineering

Date: January, 2016

University of Nebraska at Omaha

Biomechanics Research Building

University of Nebraska Medical Center Omaha

*Department of Environmental, Agricultural and
Occupational Health, College of Public Health*

NASA Johnson Space Center

*Wyle Science, Technology and Engineering
Neuroscience Laboratories*

Researcher: Diderik Jan A. Eikema | Jung Hung Chien | Nicholas Stergiou | Sara A. Myers
Melissa M. Scott-Pandorf | Jacob J. Bloomberg | Mukul Mukherjee

Title of Paper/Research: [Optic flow improves adaptability of spatiotemporal characteristics during split-belt locomotor adaptation with tactile stimulation](#)

Journal: Experimental Brain Research

Date: November, 2015

University of Edinburgh

Human Cognitive Neuroscience, Department of Psychology

Centre for Cognitive Ageing and Cognitive Epidemiology, Department of Psychology

Heriot-Watt University

Department of Psychology, School of Life Sciences

German Center for Neurodegenerative Diseases (DZNE)

Aging and Cognition Research Group

Otto-von-Guericke University

Center for Behavioral Brain Sciences (CBBS)

Researcher: Michael Craig | Michaela Dewar | Mathew A. Harris | Sergio Della Sala
Thomas Wolbers

Title of Paper/Research: [Wakeful rest promotes the integration of spatial memories into accurate cognitive maps](#)

Journal: Hippocampus

Date: October, 2015

University of Hamburg

Human Computer Interaction

University of Central Florida

Synthetic Reality Lab

University Medical Center Hamburg-Eppendorf

*Department of Neurophysiology and
Pathophysiology*

Researcher: Omar Janeh | Eike Langbehn | Frank Steinicke | Gerd Bruder

Alessandro Gulberti | Monika Poetter-Nerger

Title of Paper/Research: [Walking in Virtual Reality: Effects of Manipulated Visual Self-Motion on Walking Biomechanics](#)

Journal: ACM Transactions on Applied Perception (TAP)

Date: January, 2017

University of Sassari

Engineering Unit, POLCOMING Department

**Interuniversity Center of Bioengineering of the
Human Neuromusculoskeletal System**

Researcher: Agnese Peruzzi | Information | Ignazio Roberto Zarbo | Andrea Cereatti

Ugo Della Croce | Anat Mirelman

Title of Paper/Research: [An innovative training program based on virtual reality and treadmill: effects on gait of persons with multiple sclerosis](#)

Journal: Disability and Rehabilitation

Date: November, 2016

Ohio University

Physical Therapy

Virginia Commonwealth University

Psychology

Researcher: James S. Thomas | Christopher R. France | Megan E. Applegate

Samuel T. Leitkam | Peter E. Pidcoe | Stevan Walkowski

Title of Paper/Research: [Effects of Visual Display on Joint Excursions Used to Play Virtual Dodgeball](#)

Journal: JMIR-Serious Games

Date: October, 2016

University of Illinois at Urbana-Champaign

Department of Kinesiology and Community Health

Researcher: Christopher Widdowson | Jatin Ganhotra | Mohammed Faizal | Marissa Wilko Saurin Parikh | Zainulabidin Adhami | Manuel E. Hernandez

Title of Paper/Research: [Virtual reality applications in assessing the effect of anxiety on sensorimotor integration in human postural control](#)

Journal: Engineering in Medicine and Biology Society (EMBC)

Date: October, 2016

Ohio University

School of Rehabilitation and Communication Studies, Division of Physical Therapy

Department of Psychology

Ohio University Heritage College of Osteopathic Medicine

Department of Osteopathic Manipulative Medicine

Researcher: James S. Thomas | Christopher R. France | Megan E. Applegate Samuel T. Leitkam | Stevan Walkowski

Title of Paper/Research: [Feasibility and Safety of a Virtual Reality Dodgeball Intervention for Chronic Low Back Pain: A Randomized Clinical Trial](#)

Journal: The Journal of Pain

Date: September, 2016

University of British Columbia

School of Kinesiology

International Collaboration for Repair Discoveries

Djavad Mowafaghian Centre for Brain Health

Researcher: Taylor W. Cleworth | Romeo Chua | J. Timothy Inglis | Mark G. Carpenter

Title of Paper/Research: [Influence of virtual height exposure on postural reactions to support surface translations](#)

Journal: Gait & Posture

Date: June, 2016

Wilfrid Laurier University

*Sun Life Financial Movement Disorders
Research and Rehabilitation Center*

University of Waterloo

Department of Psychology

Researcher: Kaylena A. Ehgoetz Martens | Colin G. Ellard | Quincy J. Almeida

Title of Paper/Research: Evaluating the Link Between Dopaminergic Treatment, Gait Impairment, and Anxiety in Parkinson's Disease

Journal: Movement Disorders Clinical Practice

Date: January, 2016

College of Allied Health Professions

Center for Advanced Surgical Technology

University of Nebraska Medical Center

*Department of Surgery
Biomechanics Research Building*

Researcher: Chun-Kai Huang | Ashley Boman | Anthony White | Dmitry Oleynikov
Ka-Chun Siu

Title of Paper/Research: Effects of Hand Dominance and Postural Selection on Muscle Activities of Virtual Laparoscopic Surgical Training Tasks

Journal: Medicine Meets Virtual Reality 22

Date: 2016

Vanderbilt University

*Department of Electrical Engineering and
Computer Science
Vanderbilt Vision Research Center
Department of Psychology*

Researcher: Richard Paris | Bobby Bodenheimer | Randolph Blake

Title of Paper/Research: [Does direction of walking impact binocular rivalry between competing patterns of optic flow?](#)

Journal: Attention, Perception, & Psychophysics

Date: February, 2017

University of Texas at Austin

Institute for Neuroscience

Universidad Autónoma de Madrid

Facultad de Psicología

University of Bath

*Department of Computer Science
Center for Perceptual Systems*

Researcher: Scott Schnelle | Junmin Wang | Haijun Su | Richard Jagacinski

Title of Paper/Research: [A Driver Steering Model With Personalized Desired Path Generation](#)

Journal: IEEE Transactions on Systems, Man, and Cybernetics: Systems

Date: January, 2017

University of California Santa Barbara

Department of Psychology

Researcher: Alexander Smolentsev | Jim Blascovich | Jessica E. Cornick

Title of Paper/Research: [Using a preamble to increase presence in digital virtual environments](#)

Journal: Virtual Reality

Date: January, 2017

German Center for Neurodegenerative Diseases-Magdeburg

University of Alberta Edmonton

Department of Psychology

Researcher: Ruoqing Zhou | Weimin Mou

Title of Paper/Research: [The limits of boundaries: unpacking localization and cognitive mapping relative to a boundary](#)

Journal: Psychological Research

Date: January, 2017

University of Hamburg

Human Computer Interaction

University of Central Florida

Synthetic Reality Lab

University Medical Center Hamburg-Eppendorf

Department of Neurophysiology and Pathophysiology

Researcher: Omar Janeh | Eike Langbehn | Frank Steinicke | Gerd Bruder

Alessandro Gulberti | Monika Poetter-Nerger

Title of Paper/Research: [Walking in Virtual Reality: Effects of Manipulated Visual Self-Motion on Walking Biomechanics](#)

Journal: ACM Transactions on Applied Perception (TAP)

Date: January, 2017

Iowa State University Ames

Department of Psychology

Researcher: Zachary D. Siegel | Jonathan W. Kelly

Title of Paper/Research: [Walking through a virtual environment improves perceived size within and beyond the walked space](#)

Journal: Attention, Perception, & Psychophysics

Date: December, 2016

Stanford University

Department of Communication

University of Chicago

Department of Psychology

Researcher: Jakki O. Bailey | Jeremy N. Bailenson | Daniel Casasanto

Title of Paper/Research: [When Does Virtual Embodiment Change Our Minds?](#)

Journal: PRESENCE

Date: December, 2016

University of South Wales

School of Psychology and Therapeutic Studies

Oxford Brookes University

*Department of Psychology, Social Work
and Public Health*

University of London

Department of Psychology, Royal Holloway

Researcher: Catherine Purcell | Kate Wilmut | John P. Wann

Title of Paper/Research: [The use of visually guided behaviour in children with Developmental Coordination Disorder \(DCD\) when crossing a virtual road](#)

Journal: Human Movement Science

Date: December, 2016

**Leibniz Research Center for Working
Environments and Human Factors**

Department of Ergonomics

Researcher: Thorsten Plewan | Gerhard Rinkenauer

Title of Paper/Research: [Fast and Forceful: Modulation of Response Activation Induced by Shifts of Perceived Depth in Virtual 3D Space](#)

Journal: Frontiers in Psychology

Date: December, 2016

Wilfrid Laurier University

*Sun Life Financial Movement Disorders
Research and Rehabilitation Centre*

University of Waterloo

Department of Psychology

Researcher: Kaylena A. Ehgoetz Martens | Shannon C. Lefaire | Eric N. Beck | Rebecca Chow
Frederico Pieruccini-Faria | Colin G. Ellard | Quincy J. Almeida

Title of Paper/Research: Anxiety provokes balance deficits that are selectively dopa-responsive in Parkinson's disease

Journal: Neuroscience

Date: November, 2016

Justus-Liebig-University

Experimental Psychology

TU Chemnitz

Institut für Physik

Queen's University

Centre for Neuroscience Studies

Researcher: Mathias Klinghammer | Immo Schütz | Gunnar Blohm | Katja Fiehler

Title of Paper/Research: Allocentric information is used for memory-guided reaching in depth: A virtual reality study

Journal: Vision Research

Date: November, 2016

Johannes Gutenberg University Mainz

Department of Psychology

Researcher: Johannes Harbort | Julia Spiegel | Michael Witthöft | Heiko Hecht

Title of Paper/Research: The effects of social pressure and emotional expression on the cone of gaze in patients with social anxiety disorder

Journal: Journal of Behavior Therapy and Experimental Psychiatry

Date: November, 2016

University of Leicester

Neuroscience, Psychology and Behaviour

Researcher: Carlo De Lillo | Melissa Kirby | Daniel Poole

Title of Paper/Research: Spatio-Temporal Structure, Path Characteristics, and Perceptual Grouping in Immediate Serial Spatial Recall

Journal: Frontiers in Psychology

Date: November, 2016

University of Hamburg

Human-Computer Interaction

University of Muenster

Institute of Psychology

Researcher: Eike Langbehn | Tino Raupp | Gerd Bruder | Frank Steinicke | Benjamin Bolte
Markus Lappe

Title of Paper/Research: Visual blur in immersive virtual environments: does depth of field or motion blur affect distance and speed estimation?

Journal: VRST ,16 Proceedings of the 22nd ACM Conference on Virtual Reality Software and Technology

Date: November, 2016

Stanford University

Department of Communication

Researcher: Bireswar Laha | Jeremy N. Bailenson | Andrea Stevenson Won | Jakki O. Bailey

Title of Paper/Research: Evaluating Control Schemes for the Third Arm of an Avatar

Journal: PRESENCE

Date: November, 2016

Wayne State University

Psychology

Researcher: Antonia Abbey | Sheri E. Pegram | Jacqueline Woerner | Rhiana Wegner
Title of Paper/Research: Men's Responses to Women's Sexual Refusals: Development and Construct Validity of a Virtual Dating Simulation of Sexual Aggression
Journal: Psychology of Violence
Date: November, 2016

University of Ottawa

Université du Québec en Outaouais

Département de psychoéducation et de psychologie

Researcher: Oliver Baus | Stéphane Bouchard
Title of Paper/Research: Exposure to an unpleasant odour increases the sense of Presence in virtual reality
Journal: Virtual Reality
Date: October, 2016

Second University of Naples

*Laboratory of Cognitive Science and Immersive Virtual Reality
CS-IVR*

Department of Psychology

University of Bologna

Department of Psychology

Université Lille

Cognitive and Affective Sciences Laboratory

Researcher: Gennaro Ruggiero | Francesca Frassinetti | Yann Coello | Mariachiara Rapuano
Armando Schiano di Cola | Tina Iachini
Title of Paper/Research: The effect of facial expressions on peripersonal and interpersonal spaces
Journal: Psychological Research
Date: October, 2016

Ohio University

Physical Therapy

Virginia Commonwealth University

Psychology

Researcher: James S. Thomas | Christopher R. France | Megan E. Applegate
Samuel T. Leitkam | Peter E. Pidcoe | Stevan Walkowski

Title of Paper/Research: [Effects of Visual Display on Joint Excursions Used to Play Virtual Dodgeball](#)

Journal: JMIR-Serious Games

Date: October, 2016

University of Muenster

Institute of Psychology

Otto Creutzfeldt Center for Cognitive and Behavioral Neuroscience

Institute of Sport Science

Researcher: Benjamin Bolte | Marc de Lussanet | Markus Lappe

Title of Paper/Research: [Virtual reality system for the enhancement of mobility in patients with chronic back pain](#)

Journal: International Journal of Child Health and Human Development

Date: September, 2016

University College London

Department of Psychology and Human Development

UCL Institute of Education

Kingston University London

Department of Psychology

Acuity Intelligence

Researcher: E. K. Farran | S. Formby | F. Daniyal | T. Holmes | J. Van Herwegen

Title of Paper/Research: [Route-learning strategies in typical and atypical development: eye tracking reveals atypical landmark selection in Williams syndrome](#)

Journal: Journal of Intellectual Disability Research

Date: September, 2016

Ohio University

Physical Therapy

*School of Rehabilitation and Communication
Studies, Division of Physical Therapy*

Ohio University Heritage College of Osteopathic Medicine

*Department of Osteopathic Manipulative
Medicine*

Researcher: James S. Thomas | Christopher R. France | Megan E. Applegate
Samuel T. Leitkam | Stevan Walkowski

Title of Paper/Research: [Feasibility and Safety of a Virtual Reality Dodgeball Intervention
for Chronic Low Back Pain: A Randomized Clinical Trial](#)

Journal: The Journal of Pain

Date: September, 2016

University of California, Santa Barbara

*Department of Psychological and Brain
Sciences*

Researcher: Trevor J. Barrett | Mary Hegarty

Title of Paper/Research: [Effects of interface and spatial ability on manipulation of virtual
models in a STEM domain](#)

Journal: Computers in Human Behavior

Date: August, 2016

University of Alberta

Department of Psychology

Researcher: Weimin Mou | Ruoqing Zhou

Title of Paper/Research: [Superior cognitive mapping through single landmark-related
learning than through boundary-related learning](#)

Journal: Journal of Experimental Psychology: Learning, Memory, and Cognition

Date: August, 2016

Stanford University

*Department of Communication
Department of Psychology*

Researcher: Soo Youn Oh | Jeremy Bailenson | Erika Weisz | Jamil Zaki

Title of Paper/Research: [Virtually old: Embodied perspective taking and the reduction of ageism under threat](#)

Journal: Computers in Human Behavior

Date: July, 2016

Durham University

*Department of Psychology Science
Laboratories*

Researcher: James Negenä | Edward Heywood-Everetta | Hannah E. Roomea | Marko Nardinia

Title of Paper/Research: [Development of Allocentric Spatial Recall from New Viewpoints in Virtual Reality](#)

Journal: Developmental Science

Date: July, 2016

University of Leeds

*School of Psychology, Institute of Transport
Studies*

Researcher: Callum Mole | Georgia Kountouriotis | Jacket Billington | Richard Wilkie

Title of Paper/Research: [Optic Flow Speed Modulates Guidance Level Control: New Insights into Two-Level Steering](#)

Journal: Journal of Experimental Psychology: Human Perception and Performance

Date: July, 2016

Brown University

Department of Cognitive, Linguistic, and Psychological Sciences

Researcher: Max Kinatered | William H. Warren

Title of Paper/Research: [Social influence on evacuation behavior in real and virtual environments](#)

Journal: Frontiers in Robotics and AI: Virtual Environments

Date: July, 2016

University of Lausanne

Department of Organizational Behavior

Researcher: Dario Bombari | Marianne Schmid Mast | Manuel Bachmann

Title of Paper/Research: [Felt power explains the link between position power and experienced emotions](#)

Journal: Emotion

Date: July, 2016

Stanford University

Department of Communication

Researcher: Soo Youn Oh | Ketaki Shriram | Bireswar Laha | Shawnee Baughman | Elise Ogle
Jeremy Bailenson

Title of Paper/Research: [Immersion at scale: Researcher's guide to ecologically valid mobile experiments](#)

Journal: Virtual Reality (VR), 2016 IEEE

Date: July, 2016

University of Bath

Department of Psychology

Max Planck Institute for Intelligent Systems

Perceiving Systems

University College London

*Institute of Cognitive Neuroscience &
Dept. Anatomy*

Durham University

*Department of Psychology Science
Laboratories*

Researcher: Karin Petrini | Andrea Caradonna | Celia Foster | Neil Burgess | Marko Nardini

Title of Paper/Research: [How vision and self-motion combine or compete during path reproduction changes with age](#)

Journal: Sci Rep

Date: July, 2016

University of Bern

Institute of Psychology

Center for Cognition, Learning and Memory

*ARTORG Center for Biomedical Engineering
Research, Gerontechnology & Rehabilitation*

Researcher: Wilhelm K. Klatt | Alvin Chesham | Janek S. Lobmaier

Title of Paper/Research: [Putting Up a Big Front: Car Design and Size Affect Road-Crossing Behaviour](#)

Journal: PLoS ONE

Date: July, 2016

University of Alberta

Department of Psychology

Researcher: Yu Du | Marcia L. Spetch | Weimin Mou

Title of Paper/Research: [Look up: Human adults use vertical height cues in reorientation](#)

Journal: Memory & Cognition

Date: June, 2016

Second University of Naples

Department of Architecture and Industrial Design

Department of Psychology

Researcher: Luigi Maffei | Massimiliano Masullo | Aniello Pascale | Gennaro Ruggiero
Virginia Puyana Romero

Title of Paper/Research: [Immersive virtual reality in community planning: Acoustic and visual congruence of simulated vs real world](#)

Journal: Sustainable Cities and Society

Date: June, 2016

National Human Genome Research Institute

Social and Behavioral Research Branch

National Cancer Institute

Basic Biobehavioral and Psychological Sciences Branch

Behavioral Research Program

Researcher: Susan Persky | Rebecca A. Ferrer | William M. P. Klein

Title of Paper/Research: [Nonverbal and paraverbal behavior in \(simulated\) medical visits related to genomics and weight: a role for emotion and race](#)

Journal: Journal of Behavioral Medicine

Date: May, 2016

George Mason University

Department of Psychology

Georgetown University Medical Center

Department of Neuroscience

Researcher: Martin Wiener | Kelly Michaelis | James C. Thompson

Title of Paper/Research: [Functional correlates of likelihood and prior representations in a virtual distance task](#)

Journal: Human Brain Mapping

Date: May, 2016

Washington University in St. Louis

*Department of Psychology
Knight Alzheimer's Disease Research Center
Hope Center for Neurological Disorders
Department of Neurology
Department of Radiology*

Researcher: Samantha L. Allison | Anne M. Fagan | John C. Morris | Denise Head

Title of Paper/Research: [Spatial Navigation in Preclinical Alzheimer's Disease](#)

Journal: Journal of Alzheimer's Disease

Date: April, 2016

University of Leeds

*School of Psychology and Institute of
Transport Studies*

Manchester Metropolitan University

Department of Psychology

Researcher: Georgios Kountouriotis | Callum Mole | Natasha Merat | Richard Wilkie

Title of Paper/Research: [The need for speed: global optic flow speed influences steering](#)

Journal: Royal society open science

Date: April, 2016

Leibniz Research Centre for Working Environment and Human Factors

Department of Ergonomics

Researcher: Thorsten Plewan | Gerhard Rinkenauer

Title of Paper/Research: [Simple reaction time and size–distance integration in virtual 3D space](#)

Journal: Psychological Research

Date: March, 2016

Simon Fraser University

School of Interactive Arts & Technology (SIAT)

Researcher: Alexandra Kitson | Daniel Sproll | Bernhard E. Riecke

Title of Paper/Research: Influence of Ethnicity, Gender and Answering Mode on a Virtual Point-to-Origin Task

Journal: Frontiers in Behavioral Neuroscience

Date: February, 2016

Universidad de Oviedo

Laboratorio de Neurociencias, Departamento de Psicología

Instituto de Neurociencias Principado de Asturias (INEUROPA)

Vanderbilt University

Department of Psychology

Researcher: C. Zancada-Menendez | Q. He | P. Sampedro-Piquero | L. Lopez | T. P. McNamara

Title of Paper/Research: Influence of bidirectional perspective on learning routes and spatial layout

Journal: Journal of Cognitive Psychology

Date: February, 2016

Johannes Gutenberg University Mainz

Department of Psychology

Researcher: Sven Thönes | Heiko Hecht

Title of Paper/Research: How long did you look at me? The influence of gaze direction on perceived duration and temporal sensitivity

Journal: Perception

Date: February, 2016

Johannes Gutenberg University Mainz

Department of Psychology

Researcher: Christoph von Castell | Heiko Hecht | Daniel Oberfeld

Title of Paper/Research: Measuring perceived ceiling height in a visual comparison task

Journal: Quarterly Journal of Experimental Psychology

Date: February, 2016

Second University of Naples

Department of Psychology

University of Lille

Cognitive and Affective Sciences Laboratory

University of Bologna

Department of Psychology

Researcher: Tina Iachini | Yann Coello | Francesca Frassinetti | Vincenzo Paolo Senese

Francesco Galante | Gennaro Ruggiero

Title of Paper/Research: Peripersonal and interpersonal space in virtual and real environments: Effects of gender and age

Journal: Journal of Environmental Psychology

Date: January, 2016

Wilfrid Laurier University

*Sun Life Financial Movement Disorders
Research and Rehabilitation Center*

University of Waterloo

Department of Psychology

Researcher: Kaylena A. Ehgoetz Martens | Colin G. Ellard | Quincy J. Almeida

Title of Paper/Research: Evaluating the Link Between Dopaminergic Treatment, Gait Impairment, and Anxiety in Parkinson's Disease

Journal: Movement Disorders Clinical Practice

Date: January, 2016

University of Kent

School of Psychology

University of Cambridge

Behaviour and Health Research Unit

University of Manchester

School of Psychological Sciences

Researcher: Mario Weick | John A. Allen | Milica Vasiljevic | Bo Yao

Title of Paper/Research: [Walking blindfolded unveils unique contributions of behavioural approach and inhibition to lateral spatial bias](#)

Journal: Cognition

Date: December, 2015

University of Edinburgh

*Human Cognitive Neuroscience,
Department of Psychology*

*Centre for Cognitive Ageing and Cognitive
Epidemiology, Department of Psychology*

Heriot-Watt University, Edinburgh

*Department of Psychology, School of Life
Sciences*

German Center for Neurodegenerative Diseases (DZNE)

Aging and Cognition Research Group

Otto-von-Guericke University

Center for Behavioral Brain Sciences (CBBS)

Researcher: Michael Craig | Michaela Dewar | Mathew A. Harris | Sergio Della Sala
Thomas Wolbers

Title of Paper/Research: [Wakeful rest promotes the integration of spatial memories into accurate cognitive maps](#)

Journal: Hippocampus

Date: October, 2015

Brown University

Department of Cognitive, Linguistic, and Psychological Sciences

Researcher: Elizabeth R. Chrastil | William H. Warren

Title of Paper/Research: [Active and passive spatial learning in human navigation: Acquisition of graph knowledge](#)

Journal: Journal of Experimental Psychology: Learning, Memory, & Cognition

Date: July, 2015

Brown University

Cognitive, Linguistic, and Psychological Sciences

Researcher: Mintao Zhao | William H. Warren

Title of Paper/Research: [How you get there from here: Interaction of visual landmarks and path integration in human navigation](#)

Journal: Psychological Science

Date: May, 2015

WorldViz is the industry leader in immersion-ready virtual reality (VR) solutions. WorldViz's patent-pending interactive visualization and simulation technologies are deployed across 1500+ Fortune 500 companies, academic institutions and government agencies.

WorldViz's core products are Vizard, the premier development platform for professional VR application design, and VizMove, the world's only enterprise-class VR software and hardware solution. WorldViz also offers PPT, a high-precision wide-area motion tracking system, as well as professional consulting and content creation services.

WorldViz technology enables users to replace physical processes with immersive virtual methods. Applications range from design visualization and industrial training to interactive education and scientific research.



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