

Introduction to Scientific Work

Homework Assignment 3

Alexander Moriarty

Bonn-Rhine-Sieg University of Applied Sciences

13. Mai 2013

1 Guidelines

2 Papers Organizaton

3 Mind Map

Citation Guidelines

IEEE, ACM and APA citation guidelines

- i) *IEEE*: Institute of Electrical and Electronics Engineers
Sample citations [1] or [8, 10] – List References numerically, in the order that you have cited them.
- ii) *ACM*: Association of Computing Machinery
Sample citation [Phillips 2001] – List References alphabetically, using the author's last name.
- iii) *APA*: American Psychology Association
Sample citation (Raskin, 2002) – List References alphabetically, using the author's last name.

Source:

<http://dal.ca.libguides.com/content.php?pid=860&sid=11818>

Papers

Mendeley; Paper Database

Using Mendeley I exported my BibTeX references. Imported to JabRef and used a custom jabref export script to generate the following HTML, which was then printed to PDF.

Author	Title	Year	Journal/Proceedings	Keywords	Reftype	DOI/URL
Amari, S.	Dynamics of pattern formation in lateral-inhibition type neural fields.	1977	Biological Cybernetics Vol. 27(2), pp. 77-87		article	URL
Bratberg, V.	Vehicles: Experiments in Synthetic Psychology	1986	Proceedings of SAMPE Annual Conference, pp. 152		book	URL
Breazeal, C.	Socially intelligent robots	2005	Interactions Vol. 12(2), pp. 22		article	DOI URL
Connors, W.A.	AN IMPROVED PATH INTEGRATION MECHANISM USING NEURAL FIELDS WHICH IMPLEMENT A BIOLOGICALLY PLAUSIBLE ANALOGUE TO A KALMAN FILTER	2013	(February)		unpublished	
college of london) Fumham, A.Ju.	Thinking about intelligence	2000	PSYCHOLOGIST-LEICESTER- Vol. 13(10), pp. 510-514		article	URL
Gage, F.H. and Muir, A.R.	Neuroscience: The Human Brain project	2012	Scientific American Vol. 306(3), pp. 50-55	digital computing,digital neuroscience,human brain imaging,human brain project,photocopied,review	article	
Hengst, U.V.	A neural-dynamic architecture for flexible spatial language: intrinsic frames, the term 'between', and autonomy	2012	RO-MAN, 2012 Idots		article	URL
Hosoda, K.	Robust haptic recognition by anthropomorphic robotic hand	2011	Neuromorphic and Brain-Based Robots, pp. 11-22		incollection	
Hourakis, E., Maniatis, M. and Trahanias, P.	A biologically inspired approach for the control of the hand	2007	2007 IEEE Congress on Evolutionary Computation, pp. 1503-1510		article	DOI URL
Huerta, M.F., Kossow, S.H. and Leshner, A.I.	The Human Brain Project: an international resource.	1993	Trends in Neurosciences Vol. 16(11), pp. 436-438		article	URL
Katz, Y., Kath, W.L., Spitzer, N. and Hasselmo, M.E.	Coincidence detection of place and temporal context in a network model of spiking hippocampal neurons.	2007	PLoS computational biology Vol. 3(12), pp. e234	Action Potentials, Action Potentials: physiology, Algorithms, Animals, Computer Simulation, Hippocampus, Hippocampus: physiology, Models, Neurological, Nerve Net, Nerve Net: physiology, Neurons, Neurons: physiology, Rats, Synaptic Transmission, Synaptic Transmission: physiology	article	DOI URL
Krichmar, J. and Wagatsuma, H.	Neuromorphic and Brain-Based Robots	2011		brain-based robots, cognitive robots, computational neuroscience, machine ethics, neuromorphic engineering, neurobots	article	DOI URL
Kurup, U. and Lebiere, C.	What can cognitive architectures do for robotics?	2012	Biologically Inspired Cognitive Architectures Vol. 2, pp. 88-99	cognitive architecture	article	DOI URL
Lipinski, J., Sandamirskaya, Y. and Schöner, G.	Swing it to the left, swing it to the right: enacting flexible spatial language using a neurodynamic framework.	2009	Cognitive neurodynamics Vol. 3(4), pp. 373-400	dynamical systems, neural fields, nition, spatial coo- spatial language	article	DOI URL
Lipinski, J.	Flexible spatial	2010	Notes on Cognition	both spatial and non-	article	DOI

Sandeminskaya, Y. and Schöner, G.	language behaviors: Developing a neural dynamic theoretical framework	2012	Journal of Experimental Psychology: Learning, memory, and cognition Vol. 38(6), pp. 1490-511	dynamical systems, modeling, reference frame, spatial cognition, spatial language	article	DOI URL
Lipinski, J., Schneegans, S., Sandeminskaya, Y., Spencer, J.P. and Schöner, G.	A neurobehavioral model of flexible spatial language behaviors.	2012	Journal of Experimental Psychology: Learning, memory, and cognition Vol. 38(6), pp. 1490-511	dynamical systems, modeling, reference frame, spatial cognition, spatial language	article	DOI URL
Liu, Y.L.Y. and Thrun, S.	Results for outdoor-SLAM using sparse extended information filters	2003	Vol. 12003 IEEE International Conference on Robotics and Automation Cat No03CH37422, pp. 1227-1233		misc	DOI URL
Maddem, W., Milford, M. and Wyeth, G.	CAT-SLAM: probabilistic localization and mapping using a continuous appearance-based trajectory	2012	The International Journal of Robotics Research Vol. 31(4), pp. 429-451	appearance-based slam, cat-slam, vision-based robot navigation	article	DOI URL
Maniadas, M.	Time Perception in Shaping Cognitive Neurodynamics of Artificial Agents	2009	Neural Networks, 2009. Idots		article	URL
Maniadas, M., Hourdakis, M. and Trahanias, P.	Modeling Overlapping Execution/Observation Brain Pathways	2007	2007 International Joint Conference on Neural Networks, pp. 1255-1260		article	DOI URL
Maniadas, M. and Trahanias, P.	Experiencing and Processing Time with Neural Networks	2012	COGNITIVE 2012, The Fourth Idots	-time perception, inspired cognition, robotic system, temporal	article	URL
Maniadas, M. and Trahanias, P.	Modeling Robotic Cognitive Mechanisms By Hierarchical Cooperative Coevolution	2007	International Journal on Artificial Intelligence Tools Vol. 16(06), pp. 935-966		article	DOI URL
Maniadas, M. and Trahanias, P.	Design and integration of partial brain models using hierarchical cooperative coevolution	2006	Proc. International Conference on Idots		article	URL
Milford, M., Schulz, R., Prasser, D., Wyeth, G. and Wiles, J.	Learning spatial concepts from RatSLAM representations	2007	Robotics and Autonomous Systems Vol. 55(5), pp. 403-410	experience mapping, ratslam, slam, spatial conceptualization	article	DOI URL
Milford, M. and Wyeth, G.	Persistent Navigation and Mapping using a Biologically Inspired SLAM System	2009	The International Journal of Robotics Research Vol. 29(9), pp. 1131-1153		article	DOI URL
Milford, M., Wyeth, G. and Prasser, D.	RatSLAM: a hippocampal model for simultaneous localization and mapping	2004	Robotics and Automation, Idots(May 2004)		article	URL
Milford, M.J. and Wyeth, G.F.	Mapping a Suburb With a Single Camera Using a Biologically Inspired SLAM System	2008	Vol. 24(5)IEEE Transactions on Robotics, pp. 1038-1053	bio inspired robotics, monocular vision simultaneous localization mapping	misc	DOI URL
Milford, M.J. and Wyeth, G.F.	Single camera vision-only SLAM on a suburban road network	2008	Vol. 152008 IEEE International Conference on		misc	DOI URL

			Robotics and Automation, pp. 3684-3689			
Morse, A.F., Hamera, C., Clowes, R., Montebelli, A., and Ziemke, T.	The role of robotic modelling in cognitive science	2011	New Ideas in Psychology Vol. 29(3), pp. 312-324	article	DOI URL	
Mueller, C., Floeger, P., and Rötter, M.	Towards Scalable 3D Object Shape Categorization	2012		inproceedings		
Newell, A.	Precis of 'Unified Theories of Cognition'	1992	Behavioral and Brain Sciences Vol. 15(3), pp. 425-492	article	URL	
Richter, M.	A robotic architecture for action selection and behavioral organization inspired by human cognition	2012	Intelligent Robots and Idots	article	URL	
Robotics, E. and Systems, A.	Autonomous Systems Dynamics of behavior : theory and applications for autonomous robot architectures	1995	Robotics and Autonomous Systems Vol. 16(2-4), pp. 213-245	article	DOI URL	
Sandamirskaya, Y. and Lipinski, J.	Natural human-robot interaction through spatial language: a Dynamic Neural Field approach	2010	RO-MAN, 2010 Idots	article	URL	
Sandamirskaya, Y., Richter, M. and Schöner, G.	A neural-dynamic architecture for behavioral organization of an embodied agent	2011	Idots and Learning (ICDL), Idots	article	URL	
Sandamirskaya, Y. and Schöner, G.	Serial order in an acting system: a multidimensional dynamic neural fields implementation	2010	Development and Learning (Idots)	article	URL	
Sandamirskaya, Y. and Schöner, G.	Dynamic field theory of sequential action: A model and its implementation on an embodied agent	2008	Development and Learning, Idots	article	URL	
Schöner, G., Dose, M. and Engels, C.	Dynamics of behavior: theory and applications for autonomous robot architectures	1995	Robotics and Autonomous Systems Vol. 16(2-4), pp. 213-245	article	URL	
Song, J.-H. and Nakayama, K.	Target selection in visual search as revealed by movement trajectories.	2008	Vision Research Vol. 48(7), pp. 853-861	article	URL	
Spencer, J.P., Austin, A. and Schutte, A.R.	Contributions of dynamic systems theory to cognitive development	2012	Cognitive Development Vol. 27(4), pp. 401-418	article	DOI URL	
Strauss, S. and Heinke, D.	A robotics-based approach to modeling of choice reaching experiments on visual attention.	2012	Frontiers in psychology Vol. 3(April), pp. 105	article	DOI URL	

Takamuku, S., Fukuda, A. and Hosoda, K.	Repetitive grasping with anthropomorphic skin-covered hand enables robust haptic recognition	2008	2008 IEEEERSJ International Conference on Intelligent Robots and Systems, pp. 3212-3217		misc	DOI URL
Taylor, J.G.	Neural 'bubble' dynamics in two dimensions: foundations	1999	Biological Cybernetics Vol. 80, pp. 393-409		article	
Thrun, S.	Robotic Mapping: A Survey	2002	Science Vol. 298(February), pp. 1-35	bayes.filters.expectation maximization algorithm.exploration.filters.kalman.mobile robots.robotic mapping	article	DOI URL
Thrun, S.	Probabilistic Robotics	2005	Vol. 45(3)Communications of the ACM, pp. 1999-2000		book	DOI URL
Thrun, S.	Toward robotic cars	2010	Communications of the ACM Vol. 53(4), pp. 99-106		article	DOI URL
Thrun, S.	Probabilistic Algorithms in Robotics	2000	AI Magazine Vol. 21(4), pp. 93-109		article	DOI URL
Trappenberg, T.	Dynamic neural field theory	2009	Fundamentals of Computational Neuroscience, pp. 190-212		incollection	URL
Trappenberg, T.P., Dorris, M.C., Munoz, D.P. and Klein, R.M.	A model of saccade initiation based on the competitive integration of exogenous and endogenous signals in the superior colliculus.	2001	Journal of cognitive neuroscience Vol. 13(2), pp. 256-71	Humans.Models, Neurological.Neurons.Neurons: physiology.Saccades.Saccades: physiology.Superior Collicul.Superior Collicul: cytology.Superior Collicul: physiology	article	URL
Wilson, H.R. and Cowan, J.D.	A mathematical theory of the functional dynamics of cortical and thalamic nervous tissue.	1973	Kybernetik Vol. 13(2), pp. 55-80		article	URL
Wilson, H.R. and Cowan, J.D.	Excitatory and Inhibitory Interactions in Localized Populations of Model Neurons	1972	Biophysical Journal Vol. 12(1), pp. 1-24	evoked potentials.feedback.models.neural inhibition.neurological.neurons.neurons physiology.periodicity.synaptic transmission	article	URL
Wyeth, G. and Milford, M.	Spatial cognition for robots	2009	Vol. 16(3)IEEE Robotics Automation Magazine, pp. 24-32	biologically inspired robots.learning adaptive systems.neuronobotics.slam	misc	DOI URL
Wyeth, G., Milford, M., Scholz, R. and Wiles, J.	The RatSLAM project: robot spatial navigation	2011	Neuromorphic and Brain-Based Robots, pp. 87-108		incollection	
Zbner, S.K.U., Faubel, C., Issafidis, I. and Schöner, G.	Dynamic Neural Fields as Building Blocks of a Cortex-Inspired Architecture for Robotic Scene Representation	2011	IEEE Transactions on Autonomous Mental Development Vol. 3(1), pp. 74-91		article	

Created by [jabref](#) on 13/05/2013.

Mind Map

A taxonomy of Robot Architecture

