

Prof. Letha ETZKORN  
University of Alabama, USA  
Selected Scholarly Contributions SCOPUS

Beard, M.D., Kraft, N.A., Etzkorn, L.H.

[Code clones in Rhino: A case study](#)

(2012) Proceedings of the IASTED International Conference on Software Engineering and Applications, SEA 2012, pp. 454-461.

Biggers, L.R., Bocovich, C., Capshaw, R., Eddy, B.P., Etzkorn, L.H., Kraft, N.A.

[Configuring latent Dirichlet allocation based feature location](#)

(2012) Empirical Software Engineering, pp. 1-36. Article in Press.

Baker, S.E., Beard, M.D., Etzkorn, L.H.

[A case study of software quality and reuse](#)

(2012) Proceedings of the Annual Southeast Conference, pp. 112-117.

Biggers, L.R., Eddy, B.P., Kraft, N.A., Etzkorn, L.H.

[Toward a metrics suite for source code lexicons](#)

(2011) IEEE International Conference on Software Maintenance, ICSM, art. no. 6080816, pp. 492-495.

Beard, M., Kraft, N., Etzkorn, L., Lukins, S.

[Measuring the accuracy of information retrieval based bug localization techniques](#)

(2011) Proceedings - Working Conference on Reverse Engineering, WCRE, art. no. 6079835, pp. 124-128.

Mathur, R., Keen, K.J., Etzkorn, L.H.

[Towards a measure of object oriented runtime cohesion based on number of instance variable accesses](#)

(2011) Proceedings of the Annual Southeast Conference, pp. 255-257.

Michal, D.S., Etzkorn, L.

[A comparison of player/stage/gazebo and microsoft robotics developer studio](#)

(2011) Proceedings of the Annual Southeast Conference, pp. 60-66.

Corley, C.S., Kraft, N.A., Etzkorn, L.H., Lukins, S.K.

[Recovering traceability links between source code and fixed bugs via patch analysis](#)

(2011) Proceedings - International Conference on Software Engineering, pp. 31-37.

Schrimpscher, D., Wu, Z., Orme, A.M., Etzkorn, L.

[Dynamic ontology version control](#)

(2010) Proceedings of the Annual Southeast Conference, art. no. 25, .

Mathur, R., Keen, K.J., Etzkorn, L.H.

[Towards an object-oriented complexity metric at the runtime boundary based on decision points in code](#)

(2010) Proceedings of the Annual Southeast Conference, art. no. 77, .

Lukins, S.K., Kraft, N.A., Etzkorn, L.H.

[Bug localization using latent Dirichlet allocation](#)

(2010) Information and Software Technology, 52 (9), pp. 972-990.

- Schrimpscher, D., Eitzkorn, L.  
[An empirical quality model for Web service ontologies to support mobile devices](#)  
(2009) 2009 3rd International Symposium on Empirical Software Engineering and Measurement, ESEM 2009, art. no. 5315993, pp. 447-450.
- Keen, K.J., Mathur, R., Eitzkorn, L.  
[Towards a measure of software intelligence employing a runtime complexity metric](#)  
(2009) Proceedings of the 13th IASTED International Conference on Software Engineering and Applications, SEA 2009, pp. 120-125.
- Schrimpscher, D., Eitzkorn, L.  
[Sub-graphing web service ontologies to support resource constraints of mobile devices](#)  
(2009) Proceedings of the 47th Annual Southeast Regional Conference, ACM-SE 47, art. no. 1566458, .
- Virani, S., Eitzkorn, L., Gholston, S., Farrington, P., Utley, D., Fortune, J.  
[Investigation of domain effects on software](#)  
(2009) Proceedings of the 47th Annual Southeast Regional Conference, ACM-SE 47, art. no. 1566496, .
- Orme, A.M., Yao, H., Eitzkorn, L.H.  
[Complexity metrics for ontology based information](#)  
(2009) International Journal of Technology Management, 47 (1-3), pp. 161-173.
- Eitzkorn, L., Menzies, T.  
[Special issue on information retrieval for program comprehension](#)  
(2009) Empirical Software Engineering, 14 (1), pp. 1-4.
- Cox, G.W., Hughes Jr., W.E., Eitzkorn, L.H., Weisskopf, M.E.  
[Predicting computer science Ph.D. completion: A case study](#)  
(2009) IEEE Transactions on Education, 52 (1), pp. 137-143.
- Stein, C., Eitzkorn, L., Gholston, S., Farrington, P., Utley, D., Cox, G., Fortune, J.  
[Semantic metrics: Metrics based on semantic aspects of software](#)  
(2009) Applied Artificial Intelligence, 23 (1), pp. 44-77.
- Lukins, S.K., Kraft, N.A., Eitzkorn, L.H.  
[Source code retrieval for bug localization using latent Dirichlet allocation](#)  
(2008) Proceedings - Working Conference on Reverse Engineering, WCRE, art. no. 4656405, pp. 155-164.
- Vinz, B.L., Eitzkorn, L.H.  
[Comments as a sublanguage: A study of comment grammar and purpose](#)  
(2008) Proceedings of the 2008 International Conference on Software Engineering Research and Practice, SERP 2008, pp. 17-23.
- Virani, S.S., Messimer, S., Roden, P., Eitzkorn, L.  
[Software quality management tool for engineering managers](#)  
(2008) IIE Annual Conference and Expo 2008, pp. 1401-1406.
- Carpenter, S., Fortune, J.L., Delugach, H.S., Eitzkorn, L.H., Utley, D.R., Farrington, P.A., Virani, S.

[Studying team shared mental models](#)

(2008) ACM International Conference Proceeding Series, 363, pp. 41-48.

Keen, K.J., Eitzkorn, L.H.

[Mobile agents on mobile robotic platforms: A survey](#)

(2008) Proceedings of the 46th Annual Southeast Regional Conference on XX, ACM-SE 46, art. no. 1593238, pp. 507-508.

Vinz, B.L., Eitzkorn, L.H.

[Combined code understanding and comment understanding](#)

(2008) Proceedings of the 2008 International Conference on Software Engineering Research and Practice, SERP 2008, pp. 55-60.

Vinz, B.L., Eitzkorn, L.H.

[Improving program comprehension by combining code understanding with comment understanding](#)

(2008) Knowledge-Based Systems, 21 (8), pp. 813-825.

Carter, D.M., Aygun, R., Cox, G., Weisskopf, M.E., Eitzkorn, L.

[The effect of uncontrolled concurrency on model checking](#)

(2008) Concurrency Computation Practice and Experience, 20 (12), pp. 1419-1438.

Dabney, R.W., Eitzkorn, L., Cox, G.W.

[A fault-tolerant approach to test control utilizing dual-redundant processors](#)

(2008) Advances in Engineering Software, 39 (5), pp. 371-383.

Olague, H.M., Eitzkorn, L.H., Messimer, S.L., Delugach, H.S.

[An empirical validation of object-oriented class complexity metrics and their ability to predict error-prone classes in highly iterative, or agile, software: A case study](#)

(2008) Journal of Software Maintenance and Evolution, 20 (3), pp. 171-197.

Gall, C.S., Lukins, S., Eitzkorn, L., Gholston, S., Farrington, P., Utlely, D., Fortune, J., Virani, S.

[Semantic software metrics computed from natural language design specifications](#)

(2008) IET Software, 2 (1), pp. 17-26.

Funkhouser, O., Eitzkorn, L.H., Hughes Jr., W.E.

[A lightweight approach to software validation by comparing UML use cases with internal program documentation selected via call graphs](#)

(2008) Software Quality Journal, 16 (1), pp. 131-156.

Haining, Y., Eitzkorn, L.H., Virani, S.

[Automated classification and retrieval of reusable software components](#)

(2008) Journal of the American Society for Information Science and Technology, 59 (4), pp. 613-627.

Roden, P.L., Virani, S., Eitzkorn, L.H., Messimer, S.

[An empirical study of the relationship of stability metrics and the QMOOD quality models over software developed using highly iterative or agile software processes](#)

(2007) SCAM 2007 - Proceedings 7th IEEE International Working Conference on Source Code Analysis and Manipulation, art. no. 4362911, pp. 171-179.

Carpenter, S.L., Delugach, H.S., Eitzkorn, L.H., Farrington, P.A., Fortune, J.L., Utley, D.R., Virani, S.S.

[A knowledge modeling approach to evaluating student essays in engineering courses](#)

(2007) Journal of Engineering Education, 96 (3), pp. 227-239.

Olaque, H.M., Eitzkorn, L.H., Gholston, S., Quattlebaum, S.

[Empirical validation of three software metrics suites to predict fault-proneness of object-oriented classes developed using highly Iterative or agile software development processes](#)

(2007) IEEE Transactions on Software Engineering, 33 (6), pp. 402-419.

Eichelkraut, C., Eitzkorn, L.

[Describing agent based real-time distributed systems using design patterns](#)

(2007) Proceedings of the Annual Southeast Conference, 2007, pp. 156-161.

Orme, A.M., Yao, H., Eitzkorn, L.H.

[Indicating ontology data quality, stability, and completeness throughout ontology evolution](#)

(2007) Journal of Software Maintenance and Evolution, 19 (1), pp. 49-75.

Vinz, B.L., Eitzkorn, L.H.

[A synergistic approach to program comprehension](#)

(2006) IEEE International Conference on Program Comprehension, 2006, art. no. 1631106, pp. 69-73.

Eichelkraut, C., Eitzkorn, L.

[An approach for developing real-time distributed systems using an agent architecture description language](#)

(2006) Proceedings of the Annual Southeast Conference, 2006, pp. 506-511.

Yao, H., Eitzkorn, L.

[Automated conversion between different knowledge representation formats](#)

(2006) Knowledge-Based Systems, 19 (6), pp. 404-412.

Olaque, H.M., Eitzkorn, L.H., Li, W., Cox, G.

[Assessing design instability in iterative \(agile\) object-oriented projects](#)

(2006) Journal of Software Maintenance and Evolution, 18 (4), pp. 237-266.

Cox, G.W., Eitzkorn, L.H., Hughes, W.E.

[Cohesion metric for object-oriented systems based on semantic closeness from disambiguity](#)

(2006) Applied Artificial Intelligence, 20 (5), pp. 419-436.

Orme, A.M., Yao, H., Eitzkorn, L.H.

[Coupling metrics for ontology-based systems](#)

(2006) IEEE Software, 23 (2), pp. 102-108.

Olaque, H.M., Eitzkorn, L.H.

[A simple entropy-based software complexity metric](#)

(2005) Proceedings of the 2005 International Conference on Software Engineering Research and Practice, SERP'05, 2, pp. 928-934.

Olaque, H.M., Eitzkorn, L.H.

[An information theory word-based metric to evaluate software maintainability and reusability](#)

(2005) Proceedings of the 2005 International Conference on Software Engineering Research and Practice, SERP'05, 2, pp. 921-927.

Shatnawi, R.A., Eitzkorn, L.H., Hughes Jr., W.E.

[Comparing object-oriented languages using design patterns](#)

(2005) International Journal of Computers and Applications, 27 (4), pp. 228-235.

Stein, C., Eitzkorn, L., Utley, D., Farrington, P., Cox, G., Fortune, J., Gholston, S.

[Computing software metrics from design documents](#)

(2004) Proceedings of the Annual Southeast Conference, pp. 146-151.

Yao, H., Eitzkorn, L.

[Towards a semantic-based approach for software reusable component classification and retrieval](#)

(2004) Proceedings of the Annual Southeast Conference, pp. 110-115.

Raley, M.A., Eitzkorn, L.H.

[Case study: Lessons learned during a nationwide computer system upgrade](#)

(2004) Proceedings of the Annual Southeast Conference, pp. 363-368.

Cox, G.W., Eitzkorn, L.H.

[The effectiveness of battery-conserving protocols in wireless LANs](#)

(2004) 2004 IEEE/Sarnoff Symposium on Advances in Wired and Wireless Communication, pp. 137-139.

Naji, H.R., Wells, B.E., Eitzkorn, L.

[Creating an adaptive embedded system by applying multi-agent techniques to reconfigurable hardware](#)

(2004) Future Generation Computer Systems, 20 (6 SPEC. ISS.), pp. 1055-1081.

Eitzkorn, L.H., Gholston, S.E., Fortune, J.L., Stein, C.E., Utley, D., Farrington, P.A., Cox, G.W.

[A comparison of cohesion metrics for object-oriented systems](#)

(2004) Information and Software Technology, 46 (10), pp. 677-687.

Naji, H.R., Eitzkorn, L., Wells, B.E.

[Applying multi agent techniques to reconfigurable systems](#)

(2004) Advances in Engineering Software, 35 (7), pp. 401-413.

Cox, G.W., Eitzkorn, L.H., Pajnigara, Z.

[On Battery Conservation Strategies for Wireless Protocols](#)

(2003) Proceedings of the International Conference on Wireless Networks, pp. 335-340.

Cox, G.W., Eitzkorn, L.H.

[Power-Related Performance of 802.11 Protocols](#)

(2003) Proceedings of the International Conference on Wireless Networks, pp. 322-327.

Eitzkorn, L.H., Gholston, S., Hughes Jr., W.E.

[A semantic entropy metric](#)

(2002) Journal of Software Maintenance and Evolution, 14 (4), pp. 293-310.

Eitzkorn, L.H., Davis, C.G., Bowen, L.L.

[The language of comments in computer software: A sublanguage of English](#)

(2001) *Journal of Pragmatics*, 33 (11), pp. 1731-1756.

Etzkorn, L.H., Hughes Jr., W.E, Davis, C.G  
[Automated reusability quality analysis of OO legacy software](#)  
(2001) *Information and Software Technology*, 43 (5), pp. 295-308.

Etzkorn, L., Delugach, H.  
[Towards a semantic metrics suite for object-oriented design](#)  
(2000) *Proceedings of the Conference on Technology of Object-Oriented Languages and Systems, TOOLS, (TOOL 34)*, pp. 71-80.

Li, W., Etzkorn, L., Davis, C., Talburt, J.  
[Empirical study of object-oriented system evolution](#)  
(2000) *Information and Software Technology*, 42 (6), pp. 373-381.

Etzkorn, L., Bansiya, J., Davis, C.  
[Design and code complexity metrics for OO classes](#)  
(1999) *JOOP - Journal of Object-Oriented Programming*, 12 (1), pp. 35-40.

Bansiya, Jagdish, Davis, Carl, Etzkorn, Letha  
[Entropy-based complexity measure for object-oriented designs](#)  
(1999) *Theory and Practice of Object Systems*, 5 (2), pp. 111-118.

Bansiya, J., Etzkorn, L., Davis, C., Li, W.  
[A class cohesion metric for object-oriented designs](#)  
(1999) *JOOP - Journal of Object-Oriented Programming*, 11 (8), pp. 47-52.

Etzkorn, L., Davis, C., Li, W.  
[A practical look at the lack of cohesion in methods metric](#)  
(1998) *JOOP - Journal of Object-Oriented Programming*, 11 (5), pp. 27-34.

Etzkorn, L.H., Davis, C.G.  
[Automatically identifying reusable OO legacy code](#)  
(1997) *Computer*, 30 (10), pp. 66-71.

Etzkorn, L.H., Davis, C.G.  
[Automated object-oriented reusable component identification](#)  
(1996) *Knowledge-Based Systems*, 9 (8), pp. 517-524.

Etzkorn, L.H., Davis, C.G., Bowen, L.L., Etzkorn, D.B., Lewis, L.W., Vinz, B.L., Wolf, J.C.  
[Knowledge-based approach to object-oriented legacy code reuse](#)  
(1996) *Proceedings of the IEEE International Conference on Engineering of Complex Computer Systems, ICECCS*, pp. 493-496.

Etzkorn, L.H., Davis, C.G.  
[Documentation-related approach to object-oriented program understanding](#)  
(1994) *Program Comprehension, Workshop Proceedings*, pp. 39-45.