

ACT 2019 Accepted Papers (in no particular order)

ACT 2019 Accepted Long Papers

Vladimir Zamdzhiev. Reflecting Algebraically Compact Functors
Bert Lindenhovius, Michael Mislove and Vladimir Zamdzhiev. Categorical Semantics for Dual Intuitionistic/Linear Recursive Types
Hector Miller-Bakewell. Conjecture Intuition and Verification for Diagrammatic Languages
Maria Sarazola and Brendan Fong. A recipe for black box functors
Brendan Fong and David Spivak. Graphical Regular Logic
Bob Coecke . The Mathematics of Text Structure
John van de Wetering . An effect-theoretic reconstruction of quantum theory
Titouan Carrette, Emmanuel Jeandel, Simon Perdrix and Renaud Vilmart. Completeness of Graphical Languages for Mixed States Quantum Mechanics
Nicola Pinzani, Stefano Gogioso and Bob Coecke . Categorical Semantics for Time Travel
Walter Tholen . Approximate composition
Filippo Bonchi , Robin Piedeleu, Pawel Sobocinski and Fabio Zanasi . Graphical Resource Algebra, from Linear to Affine
Maaïke Zwart and Dan Marsden. No-Go Theorems for Distributive Laws
Tobias Fritz , Paolo Perrone and Sharwin Rezagholi . The support is a morphism of monads
Richard Garner. Hypernormalisation, linear exponential monads and the Giry tricocycloid
Antonin Delpeuch. A complete language for faceted dataflow programs
Spencer Breiner, Olivier Marie-Rose, Blake Pollard and Eswaran Subrahmanian. Operadic diagnosis in hierarchical systems
Micah Halter , Christine Herlihy and James Fairbanks. A Compositional Framework for Scientific Model Augmentation
Dominique Pastor, Erwan Beurier, Andrée Ehresmann and Roger Waldeck. Interfacing biology, category theory and mathematical statistics
Bryce Clarke. Internal Lenses as Functors and Cofunctors
Philip Johnson-Freyd, Jon Aytac and Geoffrey C. Hulett. Topos Semantics for a Higher-order Temporal Logic of Actions
Alejandro Díaz-Caro and Octavio Malherbe. A categorical construction for the computational definition of vector spaces
Giovanni de Felice, Konstantinos Meichanetzidis and Alexis Toumi. Montague Semantics for Lambek Prgroups
Romain Péchoux , Simon Perdrix , Mathys Rennela and Vladimir Zamdzhiev. Inductive Datatypes for Quantum Programming
Jonathan Gallagher, Geoff Cruttwell and Ben MacAdam. Towards formalizing and extending differential programming using tangent categories
Bob Coecke and Quanlong Wang. ZX-Rules for 2-qubit Clifford+T Quantum Circuits, and beyond

Antonin Delpeuch. Autonomization of monoidal categories
Neil Ghani , Clemens Kupke , Alasdair Lambert and Fredrik Nordvall Forsberg . Compositional Game Theory with Mixed Strategies: Probabilistic Open Games
John Baez and Christian Williams . Enriched Lawvere Theories for Operational Semantics
Bruno Gavranović . Learning Functors using Gradient Descent
Samson Abramsky, Rui Soares Barbosa , Martti Karvonen and Shane Mansfield . A comonadic view of simulation and quantum resources
Martha Lewis. Modelling hyponymy for DisCoCat
Brendan Fong and Michael Johnson . Functorial backpropagation and symmetric lenses
Colin Zwanziger. Natural Model Semantics for Comonadic and Adjoint Modal Type Theory
Zinovy Diskin. Evolving bidirectional transformations, compositional supervised learning, and parameterized delta lenses

ACT 2019 Accepted Short Papers

Ryan Wisnesky and David I. Spivak . Fast Left Kan Extensions Using the Chase - Extended Abstract
David I. Spivak and Brendan Fong . Abelian calculi present abelian categories
Stefano Gogioso . Fantastic Quantum Theories and Where to Find Them
Fabrizio Genovese , Alex Gryzlov , Jelle Herold , Marco Perone , Erik Post and André Videla . idris-ct: A library to do category theory in Idris
Nicolas Behr . Tracelets and Tracelet Analysis Of Compositional Rewriting Systems
Joseph Collins and Ross Duncan . Hopf-Frobenius Algebras and a new Drinfeld Double
Erwan Beurier, Dominique Pastor and David Spivak. Memoryless systems generate the class of all discrete systems
John Nolan, Blake Pollard , Spencer Breiner, Dhananjay Anand and Eswaran Subrahmanian. Compositional Models for Power Systems
Stelios Tsampas, Andreas Nuyts , Dominique Devriese and Frank Piessens. A summary on categorical contextual reasoning

ACT 2019 Accepted Business Papers

Spencer Breiner, Blake Pollard and Eswaran Subrahmanian. [NIST ACT Workshop Summary](#)

ACT 2019 Accepted Posters

Paul Scott, Qunfen Qi and Xiangqian Jiang. A category foundation for measurement science

Chad Nester. A Categorical Approach to Resource Ownership for Cryptocurrency Ledgers

Jorge Soto-Andrade and Juan-Carlos Letelier. A categorical approach to Ouroboros equation

Simon Burton. Huffman Coding Categorifies Entropy

Liang Ze Wong. Word embeddings approximate the category of elements of a database

Ryszard Paweł Kostecki. Epistemic monads, entropic projections, and resource theories

Moez A. AbdelGawad. Modeling Object-Oriented Generics -- An Order-Theoretic and Category-Theoretic Approach

Eduardo Ochs, On some missing diagrams in the Elephant