

Publications

Book chapters

[J. Glauert](#) and [D. Kesner](#) and [Z. Khasidashvili](#)

[Expression Reduction Systems and Extensions: An Overview](#)

In Festschrift in Honor of Jan Willem Klop

Processes, Terms and Cycles: Steps on the Road to Infinity

[LNCS 3838](#), pages 496-553, 2005.

Journals

- [A. Bucciarelli](#) and [D. Kesner](#) and [S. Ronchi Della Rocca](#). [Observability=Typability+Inhabitation](#). Accepted to Logical Methods in Computer Science. To appear.
- [B. Accattoli](#) and [S. Graham-Lengrand](#) and [D. Kesner](#). [Tight Typings and Split Bounds, Fully Developed](#). Journal of Functional Programming, 30(14):1--85, 2020.
- [D. Kesner](#) and [P. Vial](#). [Non-idempotent types for classical calculi in natural deduction style](#). Logical Methods in Computer Science, 16(1):1-46, 2020.
- [D. Kesner](#) and [D. Ventura](#). [A resource aware semantics for a focused intuitionistic calculus](#). Mathematical Structures in Computer Science. 29(1):93-126, 2019 (published online 22 May 2017).
- [B. Accattoli](#) and [S. Graham-Lengrand](#) and [D. Kesner](#). [Tight Typings and Split Bounds](#). Proc. of the ACM on Programming Languages Journal (PACMPL), 2(ICFP), paper 94, pages 1-30, 2018.
- [A. Bucciarelli](#) and [D. Kesner](#) and [S. Ronchi Della Rocca](#). [Inhabitation for Intersection Types](#). Logical Methods in Computer Science, 14(3), pages 1-28, 2018.
- [T. Balabonski](#) and [E. Bonelli](#) and P. Barenbaum and [D. Kesner](#). [Foundations of Strong Call by Need](#). Proc. of the ACM on Programming Languages Journal (PACMPL), 1(1), paper 20, pages 1-31, 2017.
- [A. Bucciarelli](#) and [D. Kesner](#) and [D. Ventura](#). [Non-Idempotent Intersection Types for the Lambda-Calculus](#). Logic Journal of the IGPL. 25(4):431-464, 2017.
- [E. Bonelli](#) and [D. Kesner](#) and C. Lombardi and A. Ríos. [On abstract normalisation beyond neededness](#). Theoretical Computer Science. 672:36-63, 2017.
- [B. Accattoli](#) and [D. Kesner](#). [Preservation of strong normalisation modulo permutations for the structural calculus](#). Logical Methods in Computer Science, 8(1), paper 28, pages 1-44, 2012.
- [D. Kesner](#) and [F. Renaud](#). [A prismoid framework for languages with resources](#). Theoretical Computer Science. 412(37): 4867-4892, 2011.
- [D. Kesner](#). [A Theory of Explicit Substitutions with Safe and Full Composition](#). Logical Methods in Computer Science, 5(3), paper 1, pages 1-29, 2009.
- [B. Jay](#) and [D. Kesner](#). [First-class patterns](#). Journal of Functional Programming, 19(2): 191-225, 2009.
- [J. Forest](#) and [D. Kesner](#). [Expression Reduction Systems with Patterns](#). Journal of Automated Reasoning, 39(4):513-541, 2007.
- [D. Kesner](#) and [S. Lengrand](#). [Resource Operators for lambda-calculus](#). Information and Computation. 205(4):419-473, 2007.
- [E. Bonelli](#) and [D. Kesner](#) and A. Ríos. [de Bruijn Indices for MetaTerms](#). Journal of Logic and Computation. 15(6): 855-899, 2005.
- [E. Bonelli](#) and [D. Kesner](#) and A. Ríos. [Relating Higher-Order and First-Order Rewriting](#). Journal of Logic and Computation. 15(6): 901-947, 2005.
- [S. Cerrito](#) and [D. Kesner](#). [Pattern Matching as Cut Elimination](#). Theoretical Computer Science. 323(1-3):71-127, 2004.
- [R. Di Cosmo](#) and [D. Kesner](#) and [E. Polonovski](#). [Proof Nets and Explicit Substitutions](#).

- [D. Kesner](#). [Confluence of Extensional and Non-Extensional lambda-calculi with Explicit Substitutions](#). Theoretical Computer Science. 238(1-2): 183-220, 2000.
 - [D. Kesner](#) and [P. E. Martínez López](#). [Explicit Substitutions for Objects and Functions](#). The Journal of Functional and Logic Programming (MIT Press). Special Issue 2, Volume 1999.
 - M. Ferreira and [D. Kesner](#) and [L. Puel](#). [Lambda-calculi with Explicit Substitutions Preserving Strong Normalization](#). Applicable Algebra in Engineering, Communication and Computing. 9(4): 333-371, 1999.
 - [D. Kesner](#). [Reasoning about redundant patterns](#). Journal of Functional and Logic Programming. Volume 1997, Number 4, 1997.
 - [R. Di Cosmo](#) and [D. Kesner](#). [Combining algebraic rewriting systems, extensional lambda-calculi and fixpoints](#). Theoretical Computer Science. 169: 201-220, 1996.
 - [D. Kesner](#) and [L. Puel](#) and [V. Tannen](#). [A typed pattern calculus](#). Information and Computation. 124(1):32-61, 1995.
 - [R. Di Cosmo](#) and [D. Kesner](#). [Simulating expansions without expansions](#). Mathematical Structures in Computer Science. 4: 315-362, 1994.
-

Conferences

- [D. Kesner](#) and [P. Vial](#). [Consuming and Persistent Types for Classical Logic](#). Proc. of the 35th of the Annual IEEE Symposium on Logic in Computer Science (LICS). pages 619--632, Saarbrücken, Germany, July 2020.
([pdf](#))© IEEE
- [A. Bucciarelli](#) and [D. Kesner](#) and A. Ríos and A. Viso. [The Bang Calculus Revisited](#). Proc. of the 15th International Symposium on Functional and Logic Programming (FLOPS). [LNCS](#), Akito, Japan, April 2020.
([pdf](#)) © Springer-Verlag.
- [D. Kesner](#) and [E. Bonelli](#) and A. Viso. [Strong Bisimulation for Control Operators](#) (Invited Paper). Proc. of the 28th EACSL International Conference on Computer Science and Logic (CSL). [LIPIcs, Vol 152](#), pages 4:1-4:23, Barcelona, Spain, January 2020.
([pdf](#)) © LIPIcs.
- [S. Alves](#) and [D. Kesner](#) and [D. Ventura](#). [A Quantitative Understanding of Pattern Matching](#). Post-Proc of the 25th International Conference on Types for Proofs and Programs (TYPES). [LIPIcs](#), Vol 175, pages 3:1-3:36, Oslo, Norway, June 2019.
([pdf](#))© LIPIcs.
- [D. Kesner](#) and A. Ríos and A. Viso. [Call-by-need, neededness and all that](#). Proc. of the 20th Int. Conference on Foundations of Software Science and Computation Structures (FoSSaCS). [LNCS](#) 10803, pages 241-257, Thessaloniki, Greece, April 2018.
([pdf](#)) © Springer-Verlag.
- [D. Kesner](#) and [P. Vial](#). [Types as Resources for Classical Natural Deduction](#). Proc. of the Second International Conference on Formal Structures for Computation and Deduction (FSCD). [LIPIcs, Vol 84](#), pages 24:1-24:17, Oxford, UK, September 2017.
([pdf](#)) © LIPIcs.
- [D. Kesner](#). [Reasoning about call-by-need by means of types](#). Proc. of the 19th Int. Conference on Foundations of Software Science and Computation Structures (FoSSaCS). [LNCS](#) 9634, pages 424-441, Eindhoven, The Netherlands, April 2016.
([pdf](#)) © Springer-Verlag.
- [A. Bucciarelli](#) and [D. Kesner](#) and [D. Ventura](#). [Strong Normalization through Intersection Types and Memory](#). Proc. of the 10th Int. Workshop on Logical and Semantical Frameworks, with Applications (LSFA). [ENTCS](#), Volume 323, pages 75-91, 2016.
([pdf](#)) © Elsevier Science B. V.
- [D. Kesner](#) and [D. Ventura](#). [A resource aware computational interpretation for Herberlin's syntax](#). Proc. of the 12th Int. Colloquium on Theoretical Aspects of Computing (ICTAC). [LNCS](#) 9399, pages 1--16, Cali, Colombia, September 2015.

- (pdf) © Springer-Verlag.
- [A. Bucciarelli](#) and [D. Kesner](#) and [S. Ronchi Della Rocca](#). [Observability for Pair Pattern Calculi](#). Proc. of the 13th Int. Conference on Typed Lambda Calculi and Applications (TLCA). [LIPIcs, Vol 38](#), pages 123--137, Warsaw, Poland, July 2015. (pdf) © LIPIcs.
 - [F. L. C. de Moura](#) and [D. Kesner](#) and [M. Ayala-Rincón](#). [Metaconfluence of Calculi with Explicit Substitutions at a Distance](#). IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS). [LIPIcs Vol 29](#), pages 391--402, New Delhi, India, December 2014. (pdf) © LIPIcs.
 - [D. Kesner](#) and [D. Ventura](#). [Quantitative Types for the Linear Substitution Calculus](#). Proc. of the 8th Int. Conference on Theoretical Computer Science (TCS). [LNCS 8705](#), pages 296-310, Rome, Italy, September 2014. (pdf) © Springer-Verlag.
 - [A. Bucciarelli](#) and [D. Kesner](#) and [S. Ronchi Della Rocca](#). [The Inhabitation Problem for Non-Idempotent Intersection Types](#). Proc. of the 8th Int. Conference on Theoretical Computer Science (TCS). [LNCS 8705](#), pages 341-354 Rome, Italy, September 2014. (pdf) © Springer-Verlag.
 - [B. Accattoli](#) and [E. Bonelli](#) and [D. Kesner](#) and C. Lombardi. [A Nonstandard Standardization Theorem](#). Proc. of the 41st ACM SIGPLAN-SIGACT Symposium on Principles of Programming Languages (POPL). ACM SIGPLAN-SIGACT, pages 659-670, San Diego, USA, January 2014. (pdf) © ACM.
 - [E. Bonelli](#) and [D. Kesner](#) and C. Lombardi and A. Ríos. [Normalisation for Dynamic Pattern Calculi](#). Proc. of the 23rd Int. Conference on Rewriting Techniques and Applications (RTA). [LIPIcs Vol 15](#), pages 117-132, Nagoya, Japan, May-June 2012. (pdf) © LIPIcs.
 - [B. Accattoli](#) and [D. Kesner](#). [The permutative lambda-calculus](#). Proc. of the 18th Int. Conference on Logic for Programming Artificial Intelligence and Reasoning (LPAR). [LNCS 7180](#), pages 23-36, Mérida, Venezuela, March 2012. (pdf) © Springer-Verlag.
 - [D. Kesner](#) and C. Lombardi and A. Ríos. [A Standardisation proof for algebraic pattern calculi](#). In the Proc. of 5th Int. Workshop on Higher-Order Rewriting (HOR 2010). EPTCS, Number 49, pages 58-72, Edinburgh, United Kingdom, July 2011.
 - [B. Accattoli](#) and [D. Kesner](#). [The structural lambda-calculus](#). Proc. of the 19th EACSL International Conference on Computer Science and Logic (CSL). [LNCS 6247](#), pages 381-395, Brno, Czech Republic, August 2010. (pdf) © Springer-Verlag. [Technical Report](#)
 - [D. Kesner](#) and [F. Renaud](#). [The prismoid of resources](#). Proc. of the 34th Int. Symposium on Mathematical Foundations of Computer Science (MFCS). [LNCS 5734](#), pages 464-476, Novy Smokovec, High Tatras, Slovakia, August 2009. (pdf) © Springer-Verlag.
 - [D. Kesner](#). [Perpetuality for full and safe composition \(in a constructive setting\)](#). Proc. of the 35th Int. Colloquium on Automata, Languages and Programming (ICALP), Part II. [LNCS 5126](#), pages 311-322, Reykjavik, Iceland, July 2008. (pdf) © Springer-Verlag.
 - [D. Kesner](#). [The Theory of Explicit Substitutions Revisited](#). Proc. of the 16th EACSL International Conference on Computer Science and Logic (CSL). [LNCS 4646](#), pages 238-252, Lausanne, Switzerland, September 2007. (pdf) © Springer-Verlag.
 - [R. Dyckhoff](#) and [D. Kesner](#) and [S. Lengrand](#). [Strong cut-elimination systems for Hudelmaier's depth-bounded sequent calculus for implicational logic](#). Proc. of the 3rd Int. Joint Conference on Automated Reasoning (IJCAR). [LNAI 4130](#), pages 347-361, Seattle, USA, August 2006. (ps) © Springer-Verlag.
 - [B. Jay](#) and [D. Kesner](#). [Pure pattern calculus](#). Proc. of the 15th European Symposium on Programming (ESOP).

- [LNCS 3924](#), pages 100-114, Vienna, Austria, March-April 2006.
(ps) © Springer-Verlag.
- [D. Kesner](#) and [S. Lengrand](#). **Extending the Explicit Substitution Paradigm**.
Proc. of the 16th Int. Conference on Rewriting Techniques and Applications (RTA).
[LNCS 3467](#), pages 407-422, Nara, Japan, April 2005.
(ps) © Springer-Verlag.
 - [J. Forest](#) and [D. Kesner](#). **Expression Reduction Systems with Patterns**.
Proc. of the 14th Int. Conference on Rewriting Techniques and Applications (RTA).
[LNCS 2706](#), pages 107-122, Valencia, Spain, June 2003.
(ps) © Springer-Verlag.
 - [E. Bonelli](#) and [D. Kesner](#) and A. Ríos. **From Higher-Order to First-Order Rewriting**.
Proc. of the 12th Int. Conference on Rewriting Techniques and Applications (RTA).
[LNCS 2051](#), pages 47--62, Utrecht, The Netherlands, June 2001.
(ps) © Springer-Verlag.
 - [E. Bonelli](#) and [D. Kesner](#) and A. Ríos. **A de Bruijn notation for higher-order rewriting**.
Proc. of the 11th Int. Conference on Rewriting Techniques and Applications (RTA).
[LNCS 1833](#), pages 62--79, Norwick, UK, July 2000.
(ps) © Springer-Verlag.
 - [R. Di Cosmo](#) and [D. Kesner](#) and [E. Polonovski](#). **Proof Nets and Explicit Substitutions**.
Proc. of the 3rd Int. Conference on Foundations of Software Science and Computation Structures (FoSSaCS).
[LNCS 1784](#), pages 63--81, Berlin, Germany, March/April, 2000.
 - [S. Cerrito](#) and [D. Kesner](#). **Pattern Matching as Cut Elimination**.
Proc. of the 14th Annual IEEE Symposium on Logic in Computer Science (LICS).
pages 98-108, Trento, Italy, July 1999.
(ps) © IEEE
 - [D. Kesner](#) and [P. E. Martínez López](#). **Explicit Substitutions for Objects and Functions**.
Proc. of the Joint Int. Symposia
Programming Languages, Implementations, Logics and Program (PLILP) and Algebraic and Logic Programming (ALP).
[LNCS 1490](#), pages 195-212, Pisa, Italy, September 1998.
 - M. Ferreira and [D. Kesner](#) and [L. Puel](#). **Reducing AC-Termination to Termination**.
Proc. of the 23rd Int. Symposium on Mathematical Foundations of Computer Science (MFCS).
[LNCS 1450](#), pages 239-247, Brno, Czech Republic, August 1998.
(ps) © Springer-Verlag.
 - [R. Di Cosmo](#) and [D. Kesner](#). **Strong Normalization of Explicit Substitutions via Cut Elimination in Proof Nets**.
Proc. of the 12th Annual IEEE Symposium on Logic in Computer Science (LICS).
pages 35-45, Warsaw, Poland, July 1997.
(ps) © IEEE
 - M. Ferreira and [D. Kesner](#) and [L. Puel](#). **Lambda-calculi with explicit substitutions and composition which preserve beta-strong normalization (Extended Abstract)**.
Proc. of the 5th Int. Conference on Algebraic and Logic Programming (ALP).
[LNCS 1139](#), pages 284-298, Aachen, Germany, September 1996.
(ps) © Springer-Verlag.
 - [D. Kesner](#). **Confluence properties of extensional and non-extensional lambda-calculi with explicit substitutions**.
Proc. of the 7th Int. Conference on Rewriting Techniques and Applications (RTA).
[LNCS 1103](#), pages 184-199, New Brunswick, NJ, USA, July 1996.
(ps) © Springer-Verlag.
 - [R. Di Cosmo](#) and [D. Kesner](#). **Rewriting with extensional polymorphic lambda-calculus**.
Proc. of the 9th EACSL International Conference on Computer Science Logic (CSL).
[LNCS 1092](#), pages 215-232, Paderborn, Germany, September 1995.
(ps) © Springer-Verlag.
 - [R. Di Cosmo](#) and [D. Kesner](#). **Combining first order algebraic rewriting systems, recursion and extensional lambda-calculi**.
Proc. of the 21st Int. Colloquium on Automata, Languages and Programming (ICALP).
[LNCS 820](#), pages 462-472, Jerusalem, Israel, July 1994.
(ps) © Springer-Verlag.
 - [D. Kesner](#). **Reasoning about layered, wildcard and product patterns**.


Proc. of the 4th Int. Conference on Algebraic and Logic Programming (ALP).

[LNCS 850](#), pages 253-268, Madrid, Spain, September 1994.

(ps)© Springer-Verlag.

- [R. Di Cosmo](#) and [D. Kesner](#). [A confluent reduction system for the extensional typed lambda-calculus with pairs, sum, recursion and terminal object](#).
Proc. of the 20st Int. Colloquium on Automata, Languages and Programming (ICALP).
[LNCS 700](#), pages 645-656, Lund, Sweden, July 1993.
(ps)© Springer-Verlag.
 - [D. Kesner](#) and [L. Puel](#) and [V. Tannen](#). [A typed pattern calculus](#).
Proc. of the 8th Annual IEEE Symposium on Logic in Computer Science (LICS).
pages 262-274, Montreal, Canada, June 1993.
 - [D. Kesner](#). [Free sequentiality in orthogonal order-sorted rewriting systems with constructors](#).
Proc. of the 11th Int. Conference on Automated Deduction (CADE).
LNAI 607, pages 603-617, Saratoga Springs, NY, USA, June 1992.
(ps)© Springer-Verlag.
 - [D. Kesner](#). [Pattern matching in order-sorted languages](#).
Proc. of the 16th Int. Symposium on Mathematical Foundations of Computer Science (MFCS).
[LNCS 520](#), pages 267-276, Kazimierz Dolny, Poland, September 1991.
-

Others

-  [D. Kesner](#) and [S. Yovine](#). 2018. [LIA INFINIS: méthodes formelles pour la modélisation, la spécification, la vérification et le développement de logiciels](#).
- [D. Kesner](#) and [S. Ó Conchúir](#). 2008. [Milner's Lambda Calculus with Partial Substitutions](#).
- [B. Jay](#) and [D. Kesner](#). 2008. [Patterns as first-class citizens](#).