

RFuzzy

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rfuzzy

This package implements an extension of Prolog to deal with uncertainty. Consult the following papers for detailed information about the semantics:

- [MHPCS10]
- [VAS10]
- [ASV10]
- [SMHP09]
- [MHPS09]
- [PSM09]
- [PMS08]

Usage and interface

- **Library usage:**

```
:- use_package(rfuzzy).
```

or

```
:- module(...,[rfuzzy]).
```

- **Imports:**

- *Internal (engine) modules:*

```
term_basic, arithmetic, atomic_basic, basic_props, basiccontrol, data_facts,  
exceptions, io_aux, io_basic, prolog_flags, streams_basic, system_info, term_  
compare, term_typing, hiord_rt, debugger_support.
```

- *Packages:*

```
prelude, nonpure, condcomp, assertions, regtypes.
```

Other information

An example program:

```
@includeverbatim{examples/ex_good_player.pl}
```

There are more examples in the subdirectory **examples** of the distribution.

References

- [ASV10] Ivaró Fernández-Díaz, Susana Muñoz-Hernández, and Víctor Pablos-Ceruelo. Developing user-sensitive e-commerce applications from fuzzy concepts. In *Algebraic methods, soft computing, and program verification*, International Center for Mathematical Meetings (CIEM), Castro Urdiales, Cantabria, Spain, April 2010. Julio Rubio (Univ. de La Rioja) and Manuel Ojeda-Aciego (Univ. de Málaga). Sponsored by: Ingenio2010, CIEM, Excmo. Ayuntamiento de Castro Urdiales. Keynote Speakers: Thomas Arts (Univ. of Gothenburg), Gilles Barthe (Madrid Institute for Advanced Studies (Software)), Stefan Berghofer (Technische Universität München), Mario de Jesús Pérez Jiménez (Univ. de Sevilla), José Luis Ruiz Reina (Univ. de Sevilla), Enric Trillas (European Centre for Soft Computing).
- [MHPCS10] Susana Muñoz-Hernández, Víctor Pablos-Ceruelo, and Hannes Strass. Rfuzzy: Syntax, semantics and implementation details of a simple and expressive fuzzy tool over prolog. *Information Sciences*, In Press, Accepted Manuscript:–, 2010.
- [MHPS09] Susana Muñoz-Hernández, Víctor Pablos-Ceruelo, and Hannes Strass. Rfuzzy: An expressive simple fuzzy compiler. In Joan Cabestany, Francisco Sandoval, Alberto Prieto, and Juan M. Corchado, editors, *IWANN (1)*, volume 5517 of *Lecture Notes in Computer Science*, pages 270–277. Springer, 2009.
- [PMS08] Víctor Pablos-Ceruelo, Susana Muñoz Hernández, and Hannes Strass. Rfuzzy framework. In Puri Arenas and Damiano Zanardini, editors, *18th Workshop on Logic-based methods in Programming Environments, WLPE 2008*, pages 62–76, Udine, Italy, December 2008.
- [PSM09] Víctor Pablos-Ceruelo, Hannes Strass, and Susana Muñoz Hernández. Rfuzzy—a framework for multi-adjoint fuzzy logic programming. In *Fuzzy Information Processing Society, 2009. NAFIPS 2009. Annual Meeting of the North American Fuzzy Information Processing Society Annual Conference*, pages 1–6, Cincinnati, Ohio, USA, June 2009.
- [SMHP09] Hannes Strass, Susana Muñoz-Hernández, and Víctor Pablos-Ceruelo. Operational semantics for a fuzzy logic programming system with defaults and constructive answers. In João Paulo Carvalho, Didier Dubois, Uzay Kaymak, and João Miguel da Costa Sousa, editors, *IFSA/EUSFLAT Conf.*, pages 1827–1832, 2009.
- [VAS10] Víctor Pablos-Ceruelo, Ivaró Fernández-Díaz, and Susana Muñoz-Hernández. Developing user-sensitive search engines from fuzzy concepts. In *JISBD’2010*, September 2010. accepted for publication, see <http://www.dsic.upv.es/conferences/jisbd2010/articulos.shtml>.

Library/Module Index

(Index is empty)

Predicate/Method Index

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Property Index

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Regular Type Index

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Concept Index

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Author Index

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Global Index

This is a global index containing pointers to places where concepts, predicates, modes, properties, types, applications, etc., are referred to in the text of the document.

A

arithmetic 1
 assertions 1
 atomic_basic 1

B

basic_props 1
 basiccontrol 1

C

condcomp 1

D

data_facts 1
 debugger_support 1

E

exceptions 1

H

hiord_rt 1

I

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 io_basic 1

N

nonpure 1

P

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 prolog_flags 1

R

regtypes 1

S

streams_basic 1
 system_info 1

T

term_basic 1
 term_compare 1
 term_typing 1

