Introduction to **actuar**

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1 Introduction

The **actuar** project is a package of Actuarial Science functions for R. Although various packages on CRAN provide functions that may be of use to actuaries, **actuar** aims to serve as a central location for more specifically actuarial functions and data sets. The project was officially launched in 2005 and is under active development.

The feature set of the package can be split in three main categories: loss distributions modeling, risk theory (including ruin theory) and credibility theory.

As much as possible, the developers have tried to keep the "user interface" of the various functions of the package consistent. Moreover, the package follows the general R philosophy of working with model objects. This means that instead of merely returning, say, a vector of probabilities, many functions will return an object containing, among other things, the said probabilities. The object can then be manipulated at one's will using various extraction, summary or plotting functions.

2 Documentation

It is a requirement of the R packaging system that every function and data set in a package has a help page. The **actuar** package follows this requirement strictly. In addition to the help pages, the package includes vignettes and demonstration scripts; running

```
> vignette(package = "actuar")
```

and

```
> demo(package = "actuar")
```

at the R prompt will give the list of each.

3 Collaboration and citation

Obviously, the package leaves many other fields of Actuarial Science untouched. For this situation to change, we hope that experts in their field will join their efforts to ours and contribute code to the **actuar** project. The project will continue to grow and to improve by and for the community of developers and users.

If you use R or **actuar** for actuarial analysis, please cite the software in publications. Use

```
> citation()
```

or

```
> citation("actuar")
```

for information on how to cite the software.

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