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GetdataJoy

a collaborative online IDE for R or Python



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Example

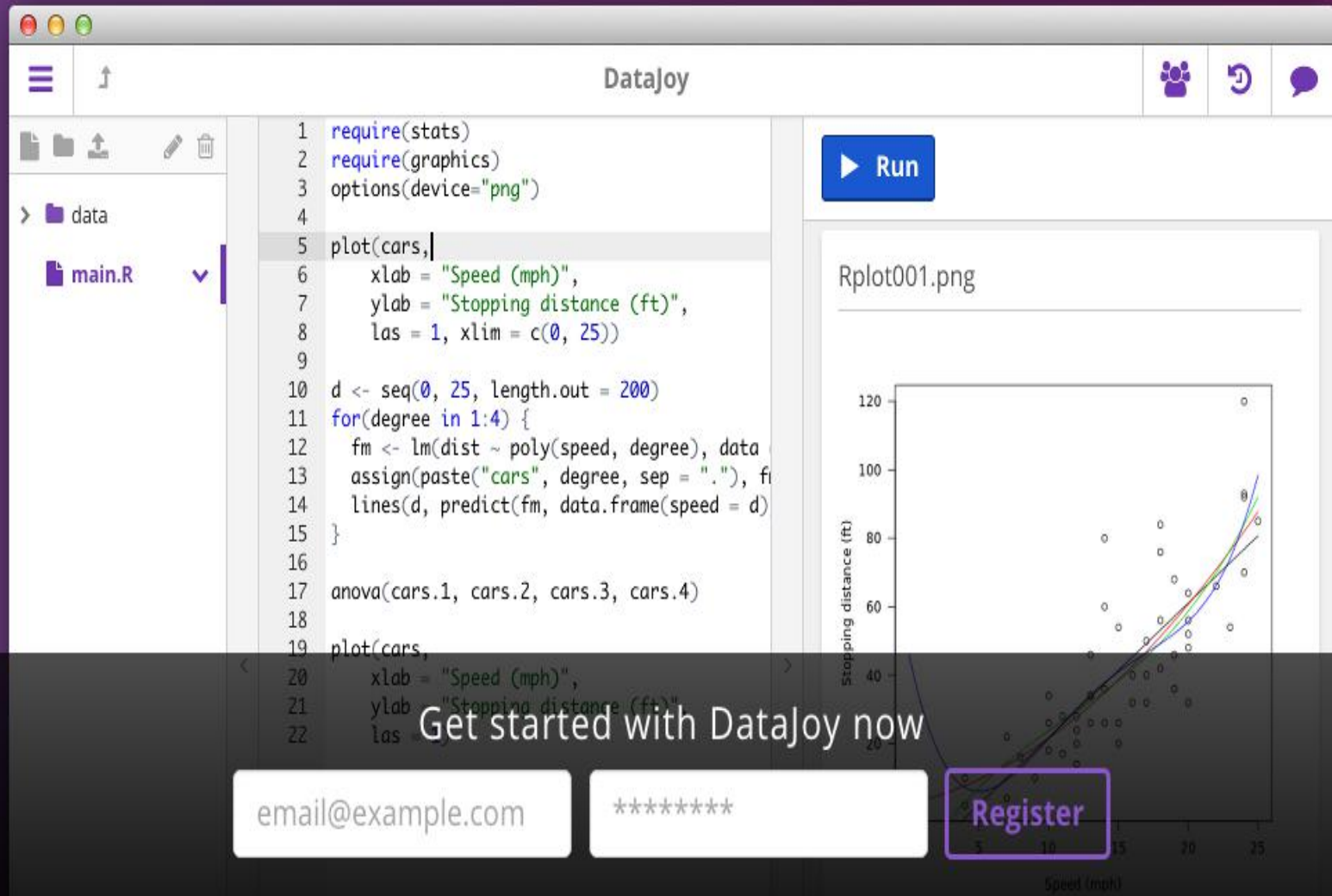
Background

- Collaborative online IDE for R, Python
- Introductions to R / Python
- About 100 common packages pre-installed
- Simple installation of other packages
- Free and commercial version available
- Developed by ScribTeX*, UK
- The collaborative aspects of Getdatajoy are similar to ShareLaTeX by the same company

* The company may or may not change its name in the near future.

Python & R, for the classroom

Teach and learn with our easy to use, online editor



The screenshot displays the DataJoy online editor interface. On the left, a file explorer shows a 'data' folder and a 'main.R' file. The main editor area contains R code for plotting stopping distance against speed. A 'Run' button is visible above the plot area. The plot, titled 'Rplot001.png', shows a scatter plot of stopping distance (ft) versus speed (mph) with several polynomial regression lines overlaid. At the bottom, there is a registration form with fields for email and password, and a 'Register' button.

```
1 require(stats)
2 require(graphics)
3 options(device="png")
4
5 plot(cars,|
6   xlab = "Speed (mph)",
7   ylab = "Stopping distance (ft)",
8   las = 1, xlim = c(0, 25))
9
10 d <- seq(0, 25, length.out = 200)
11 for(degree in 1:4) {
12   fm <- lm(dist ~ poly(speed, degree), data = cars)
13   assign(paste("cars", degree, sep = "."), fm)
14   lines(d, predict(fm, data.frame(speed = d)))
15 }
16
17 anova(cars.1, cars.2, cars.3, cars.4)
18
19 plot(cars,
20   xlab = "Speed (mph)",
21   ylab = "Stopping distance (ft)",
22   las = 1, xlim = c(0, 25))
```

Get started with DataJoy now

email@example.com ***** [Register](#)

LaTeX, Evolved

The easy to use, online, collaborative LaTeX editor

Thesis

205
206 Before discussing the scattering of two dyonic instantons we will review how the potential stabilises a single dyonic instanton. The effective action for a single dyonic instanton rotating in only one direction in the gauge group is

207 `\begin{equation}`
208 `S = 8 \pi^2 \int dt \rho^2 + \rho^2 \dot{\theta}^2 - |q|^2 \rho^2,`
209 `\end{equation}`
210 where ρ is the size of the dyonic instanton and θ is its $U(1)$ gauge angle. This can be calculated directly from the inner product of zero-modes of the 't Hooft ansatz [\cite{Peeters:2001np}](#) or from the ADHM data as in Chapter [\ref{chap:moduli space}](#). The equation of motion for the gauge angle is a conservation law for gauge angular momentum,

211 `\begin{equation}`
212 `\rho - \rho^2 + |q|^2 \rho = 0,`
213 `\end{equation}`

Recompile

Before discussing the scattering of two dyonic instantons we will review how the potential stabilises a single dyonic instanton. The effective action for a single dyonic instanton rotating in only one direction in the gauge group is

$$S = 8\pi^2 \int dt \rho^2 + \rho^2 \dot{\theta}^2 - |q|^2 \rho^2, \quad (6.2.1)$$

where ρ is the size of the dyonic instanton and θ is its $U(1)$ gauge angle. This can be calculated directly from the inner product of zero-modes of the 't Hooft ansatz [\[9\]](#) or from the ADHM data as in Chapter 5. The equation of motion for the gauge angle is a conservation law for gauge angular momentum,

$$\rho^2 = l, \quad (6.2.2)$$

where l is some constant. The equation of motion for ρ is

$$\rho - \rho^2 + |q|^2 \rho = 0, \quad (6.2.3)$$

We can replace l by the angular momentum so that

$$l = \frac{J}{\rho} + |q|^2 \rho = 0. \quad (6.2.4)$$

In the absence of a potential ($|q| = 0$), pure instantons suffer from a slow-roll instability where a small perturbation to the static instanton will result in the instanton spreading out at a constant velocity. Eventually the instanton will be spread over the entire space or hit the zero size singularity. We can easily see this behaviour on the moduli space, since the action in the effective action is flat and the equation of motion for ρ becomes $\rho = 0$ in the absence of any singular solutions.

The effective action for a dyonic instanton includes a potential term, which stabilises the shape at a fixed size. We can see from the equation of motion that when $\theta = 0$ the instanton size and orientation are fixed and constant. This describes a static dyonic instanton which satisfies the BPS equations exactly. The equation of motion on the moduli space is due to the non-zero mass term, but we will not discuss it here.

The effective action for a dyonic instanton includes a potential term, which stabilises the shape at a fixed size. We can see from the equation of motion that when $\theta = 0$ the instanton size and orientation are fixed and constant. This describes a static dyonic instanton which satisfies the BPS equations exactly. The equation of motion on the moduli space is due to the non-zero mass term, but we will not discuss it here.

Get started now

email@example.com

Register

How it works

- Register/Login
- Create a project
 - Invite collaborators or
 - make your project public
 - read/write access
 - read only access
- Upload and analyze data
- Development/collaboration in real time
- Graphics created can be downloaded

Features/Basic Version

- Collaborative Editor for R, Python
- No installation required
- Limited to 1 Collaborator
- Document change log
- Restorable document history
- Syntax highlighting
- Chat
- Low CPU Priority
- Memory limit 256 MB

Features/Researcher Version*

- Collaborative Editor for R, Python
- No installation required
- **Unlimited Collaborators**
- Document change log
- Restorable document history
- Syntax highlighting
- Chat
- **High CPU Priority**
- **Memory limit 2 GB**
- **Sync to Dropbox**
- **Sync to GitHub**

* Students or members of a university get 50% off

Groups Feature

- Designed for Using Getdatajoy in teaching
- Creation and administration of groups
- Teacher can intervene in projects
- Features planned include
 - Teacher creates projects
 - Management of marks

Package Installation

About 100 packages are pre-stalled

In case a package needed is not pre-installed,
it can be easily installed

```
In[2]: library("caret")  
library("fUnitRoots")
```

Out[2]:

The 'caret' package is not
installed.

[Install now](#)

The 'fUnitRoots' package is
not installed.

[Install now](#)

Install modules and packages

Search

caret

NA

Install

caretEnsemble

NA

Install

[Switch to Advanced Mode](#) [Trouble installing a package? Contact Us!](#)

Done

Package Installation

```
In[2]: library("caret")
       library("fUnitRoots")
```

Out[2]:

The 'caret' package is not installed.

[Install now](#)

The 'fUnitRoots' package is not installed.

[Install now](#)

Install modules and packages

caret| [Search](#)

caret	NA	Install
caretEnsemble	NA	Install

[Switch to Advanced Mode](#) [Trouble installing a package? Contact Us!](#) [Done](#)



Install modules and packages

[Python](#) [R](#) (Packages will be installed from Bioconductor. Install from CRAN, source or GitHub instead.)

package-name [Install](#)

[Switch to Simple Mode](#) [Trouble installing a package? Contact Us!](#) [Done](#)

Pricing

	Basic	Researcher*
Monthly	0	19 Euro
Annual	0	228 Euro

* Students or members of a university get 50% off

Start Your 7-Day Free Trial Today!

DataJoy is world's easiest platform for your data analysis in Python and R. Access your code & data from anywhere in the world, and share your work with your collaborators without them needing to install anything extra.

Monthly

Annual

EUR (€) ▾

Basic

Free

Only one collaborator
Low CPU priority
256Mb Memory
1 minute script timeout

Sign Up Now

Researcher

€19_{/mo}

(Exc. tax)

Unlimited Collaborators
High CPU priority
2GB Memory
Sync to Dropbox
Sync to GitHub
Full version history

Start Free Trial!

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Choose the plan that works for you with our 7-day free trial. Cancel at any time, and get a full 30-day refund if you're unhappy for any reason.

Start Your 7-Day Free Trial Today!

DataJoy is world's easiest platform for your data analysis in Python and R. Access your code & data from anywhere in the world, and share your work with your collaborators without them needing to install anything extra.

Monthly

Annual

EUR (€) ▾

Basic

Free

Only one collaborator
Low CPU priority
256Mb Memory
1 minute script timeout

[Sign Up Now](#)

Researcher

€228_{/yr}
(Exc. tax)

Unlimited Collaborators
High CPU priority
2GB Memory
Sync to Dropbox
Sync to GitHub
Full version history

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Choose the plan that works for you with our 7-day free trial. Cancel at any time, and get a full 30-day refund if you're unhappy for any reason.

Discussion

- System with unique combination of features
 - Cloud-based tool for R-Development and/or R-teaching
 - No-installation required
- Actively developed with more features to be expected soon

Thank You