
EPlc Suite

Versión 0.1

Dlab

31 de enero de 2023

| | |
|--|----------|
| 1. Contents | 3 |
| 1.1. Usage | 3 |
| 1.2. API | 4 |
| 1.3. Crear Modelos | 4 |
| 1.4. Crear áreas geográficas | 4 |
| 1.5. Crear matrices de movilidad | 4 |
| 1.6. Ajustar Modelos | 4 |
| 1.7. Resumen de selecciones | 5 |
| 1.8. Despliegue de resultados | 5 |

The **EPIc Suite** is a web-based platform designed as an enabling tool for epidemiological modeling and simulation. The suite allows the creation of pipelines for scientific research on epidemics, offering capabilities for working with data, embedding it in models, running simulations and performing analysis and projections. It is designed with a mix of simplicity of use, offering a variety of tools, such as data extraction, data fitting heuristics, dynamic parameters for modeling tendency changes like non-pharmaceutical interventions or new variant appearance, integrated function builder, integrated parameter sensitivity analysis, among others.

1.1 Usage

1.1.1 Installation

To use Lumache, first install it using pip:

```
(.venv) $ pip install lumache
```

1.1.2 Creating recipes

To retrieve a list of random ingredients, you can use the `lumache.get_random_ingredients()` function:

The `kind` parameter should be either `"meat"`, `"fish"`, or `"veggies"`. Otherwise, `lumache.get_random_ingredients()` will raise an exception.

For example:

```
>>> import lumache
>>> lumache.get_random_ingredients()
['shells', 'gorgonzola', 'parsley']
```

1.2 API

1.3 Crear Modelos

1.3.1 Modelo SIR

1.3.2 Modelo SEIR

1.3.3 Modelo SEIRHVD

1.3.4 Modelo monopoblacional

1.3.5 Modelo metapoblacional

1.3.6 Funciones

1.3.7 Importar/ exportar

1.4 Crear áreas geográficas

1.5 Crear matrices de movilidad

1.5.1 Configuración de la matriz

1.5.2 Visualización de la matriz

1.6 Ajustar Modelos

1.6.1 Selección de parámetros

1.6.2 Visualización del ajuste

1.7 Resumen de selecciones

1.8 Despliegue de resultados

1.8.1 Gráficos monopoblacionales

1.8.2 Gráficos metapoblacionales

1.8.3 Configuración de ejes

1.8.4 Mostrar mapas

1.8.5 Visualización simultánea de gráfico y mapa

1.8.6 Exportar resultados