

coronavirus_analysis_v0_2020-03-14

March 14, 2020

1 Load the data

Data comes from Johns Hopkins University at <https://github.com/CSSEGISandData/COVID-19> that is updated daily.

Example table:

	Country/Region	Confirmed	Deaths	Recovered
0	Thailand	2	0	0
1	Japan	2	0	0
2	Singapore	0	0	0
3	Nepal	0	0	0
4	Malaysia	0	0	0
...
21887	Aruba	2	0	0
21888	Canada	2	0	0
21889	Kenya	1	0	0
21890	Antigua and Barbuda	1	0	0
21891	US	5	0	0

[21889 rows x 4 columns]

Names of available countries (Note, some countries are divided in province/State

List of most affected countries (sorted by number of confirmed cases)

	Confirmed	Deaths	Recovered
Country/Region			
China	2719449	87028	1089238
Korea, South	96672	661	2339
Italy	84484	4505	6893
Iran	75645	2855	21060
Cruise Ship	19172	116	1269
France	15660	304	258
Germany	14611	17	439
Spain	12851	288	542
US	9163	263	191
Japan	8380	146	1270

Switzerland	4492	29	35
Singapore	3683	0	1769
United Kingdom	3643	42	294
Norway	3574	0	5
Netherlands	3274	32	0

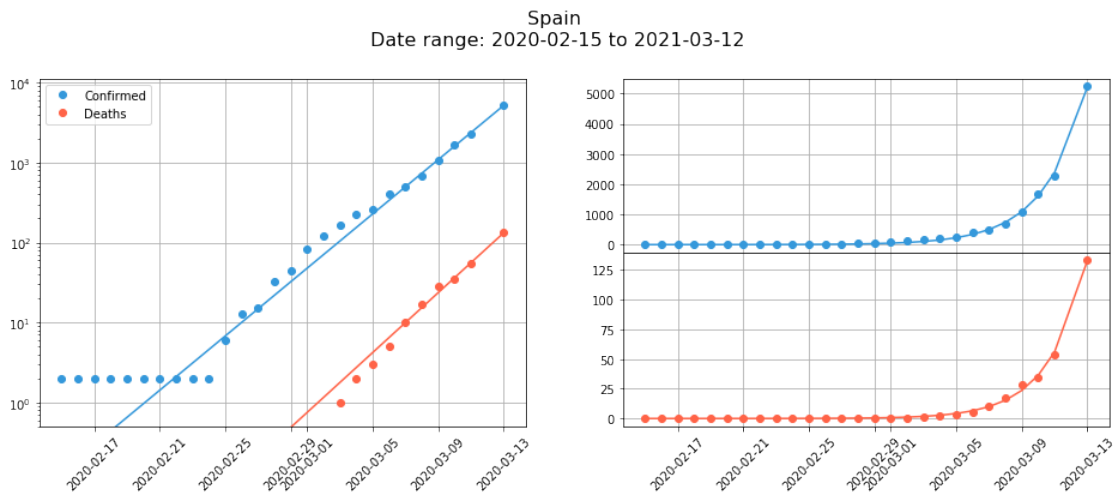
List of most affected countries/provinces (sorted by number of deaths)

Country/Region	Province/State	Confirmed	Deaths	Recovered
China	Hubei	2216904	83706	809753
Italy		84484	4505	6893
Iran		75645	2855	21060
Korea, South		96672	661	2339
China	Henan	49080	636	29745
	Heilongjiang	17162	428	8220
France	France	15627	304	258
Spain		12851	288	542
China	Beijing	16200	202	7220
	Chongqing	22897	197	12268
	Anhui	37747	191	21849
	Guangdong	53211	185	28163
	Hebei	11591	184	7333
	Hainan	6564	177	3739
	Shandong	25981	151	13117

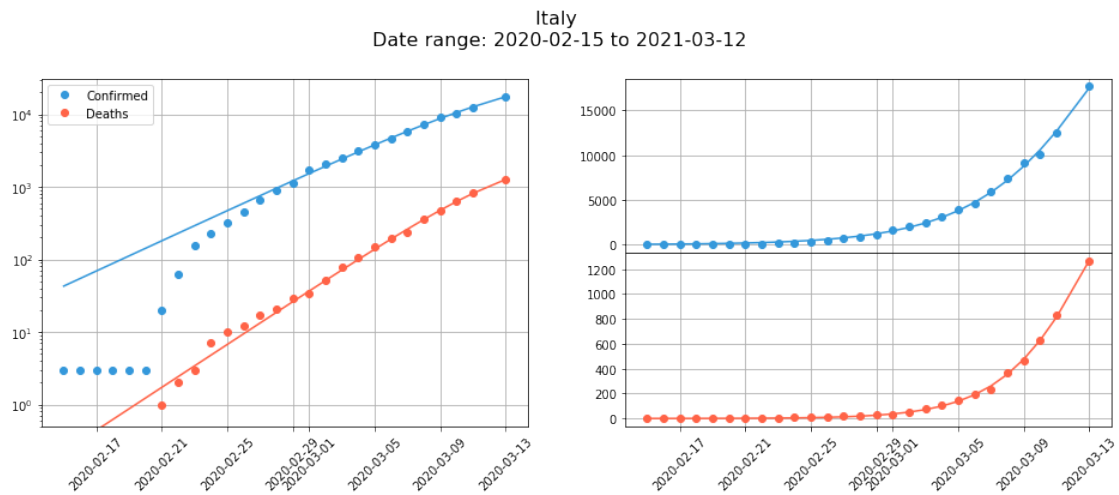
2 Evolution of Confirmed cases and Death per country

Left: log scale, right: linear scale, separating cases and deaths. The fit is a logistic growth when possible. If the fit does not converge (early stages), then a simple exponential is used.

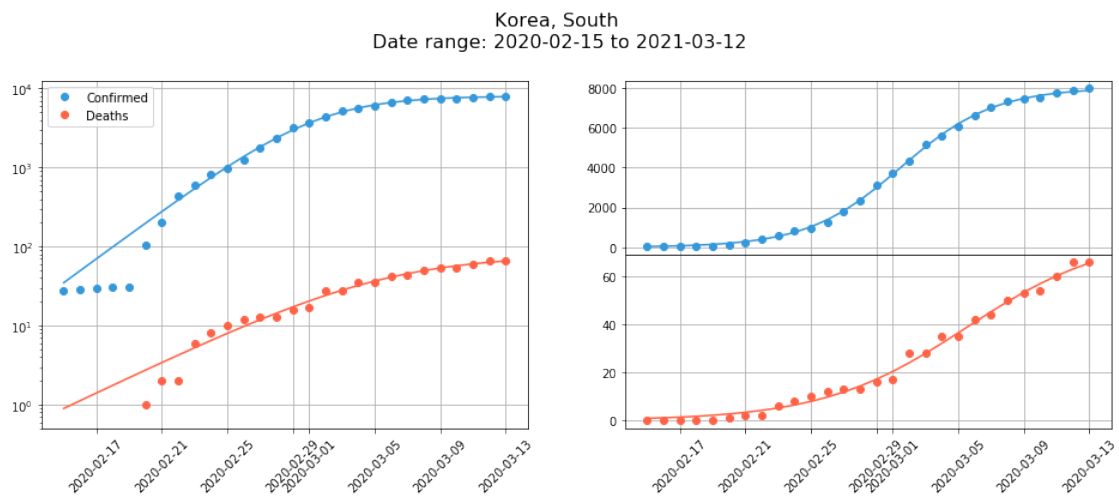
Spain



Italy

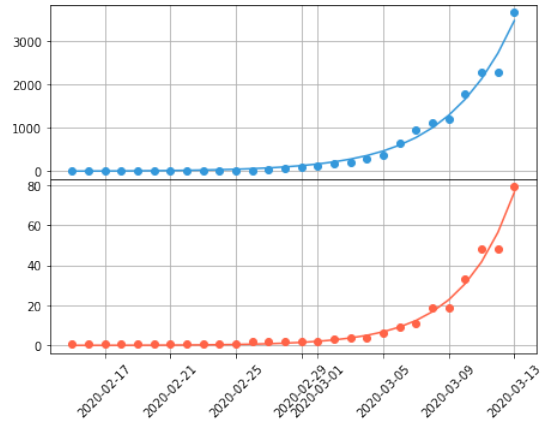
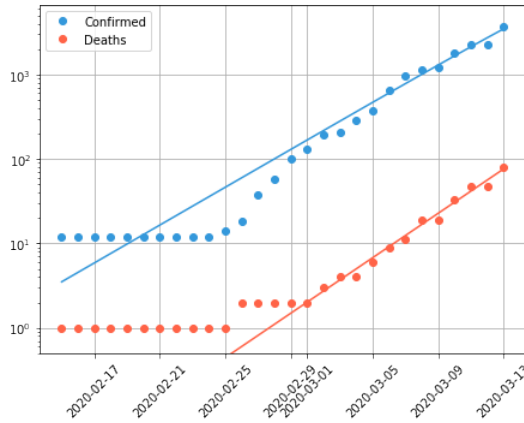


Korea, South



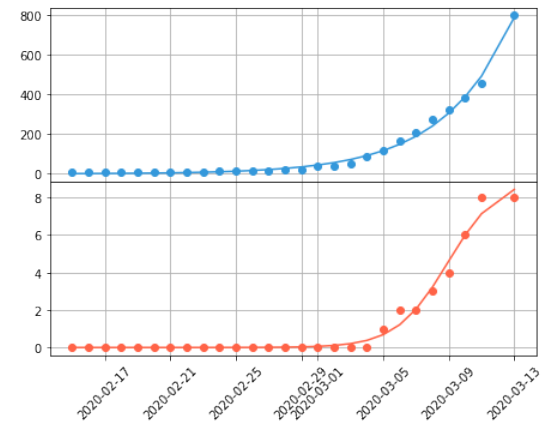
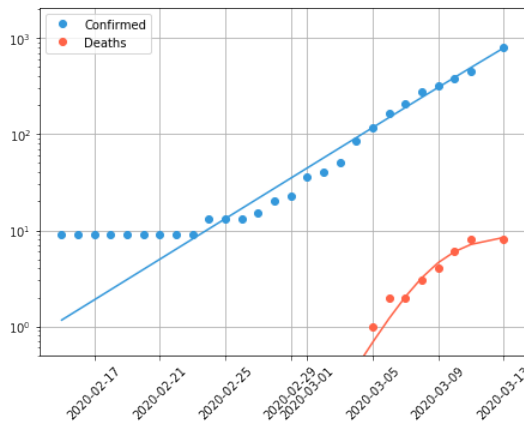
France France

France France
Date range: 2020-02-15 to 2021-03-12



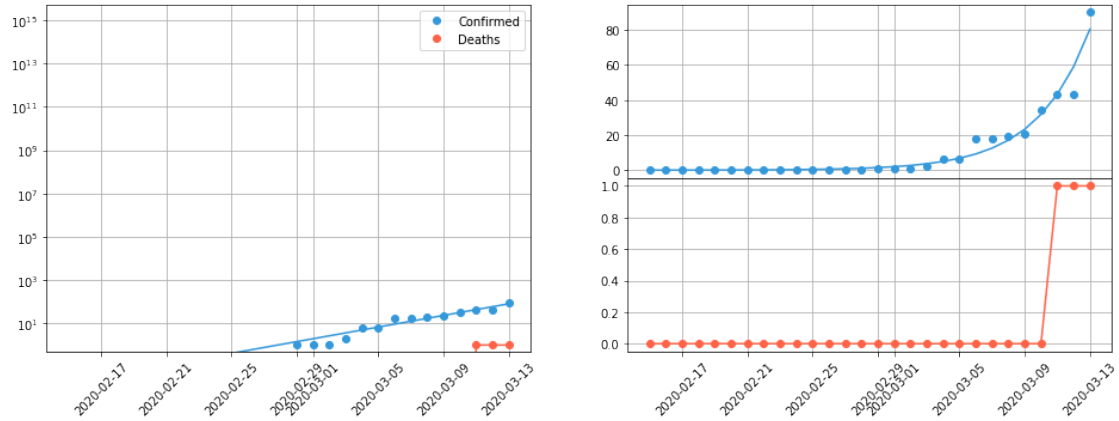
United Kingdom United Kingdom

United Kingdom United Kingdom
Date range: 2020-02-15 to 2021-03-12



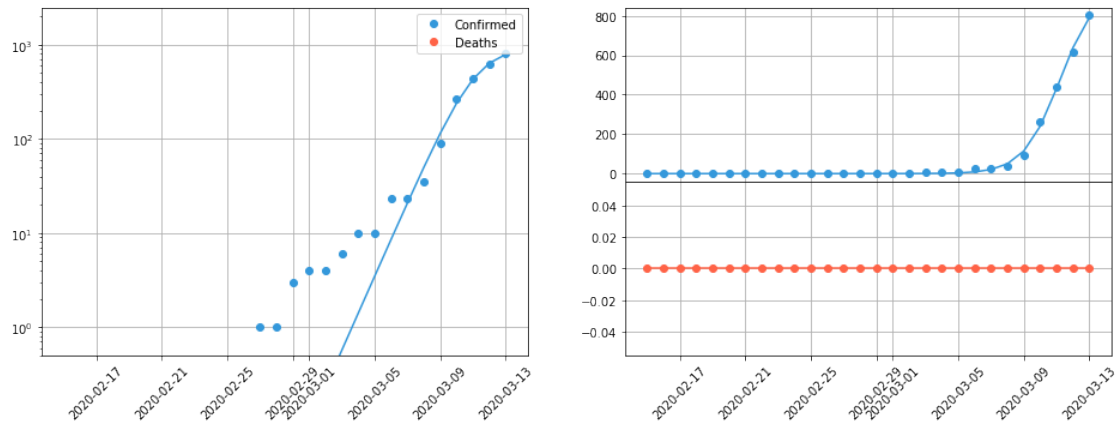
Ireland

Ireland
Date range: 2020-02-15 to 2021-03-12

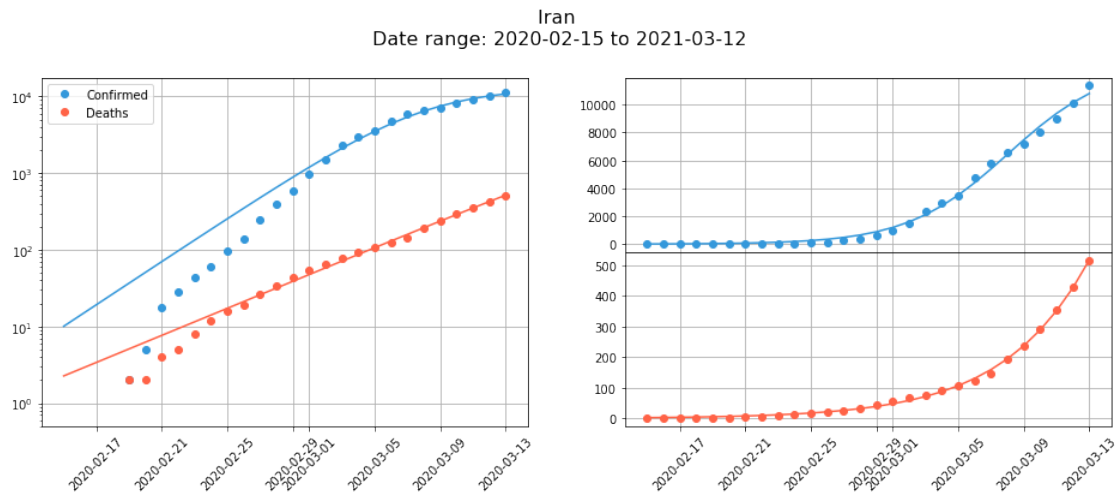


Denmark Denmark

Denmark Denmark
Date range: 2020-02-15 to 2021-03-12

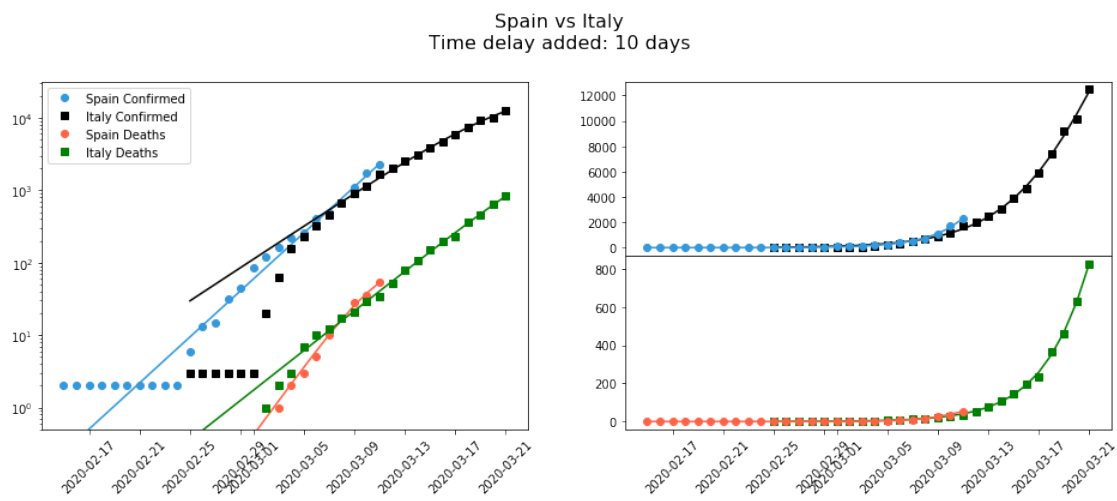


Iran



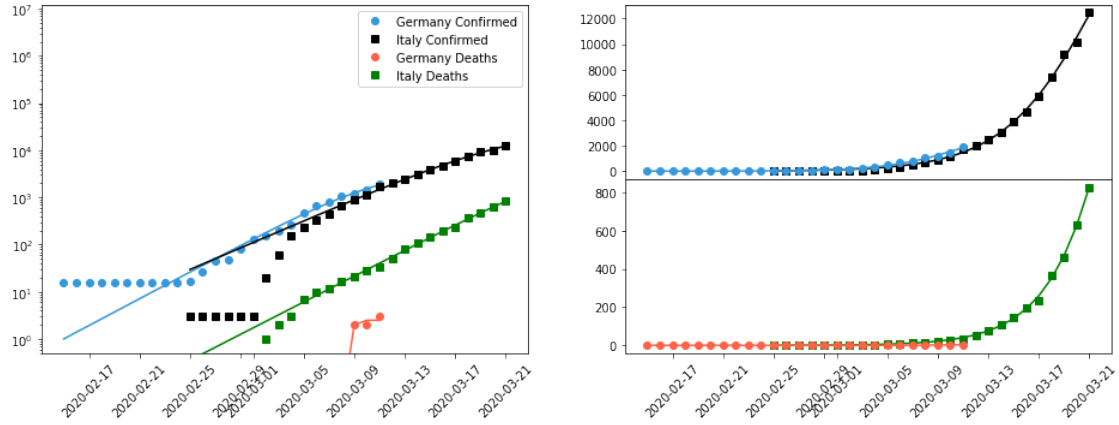
3 1-1 Comparison of two countries, with a manual time delay to align them

Spain
Italy

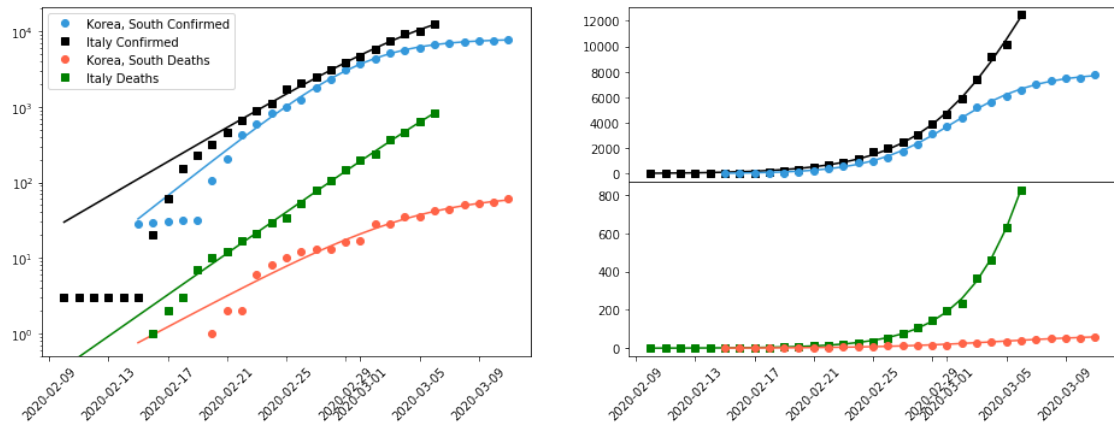


Germany
Italy

Germany vs Italy
Time delay added: 10 days



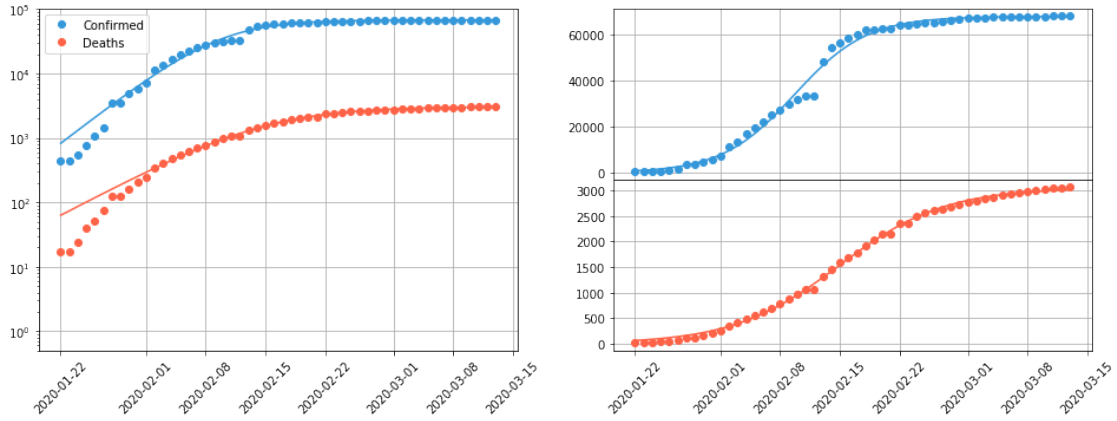
Korea, South vs Italy
Time delay added: -5 days



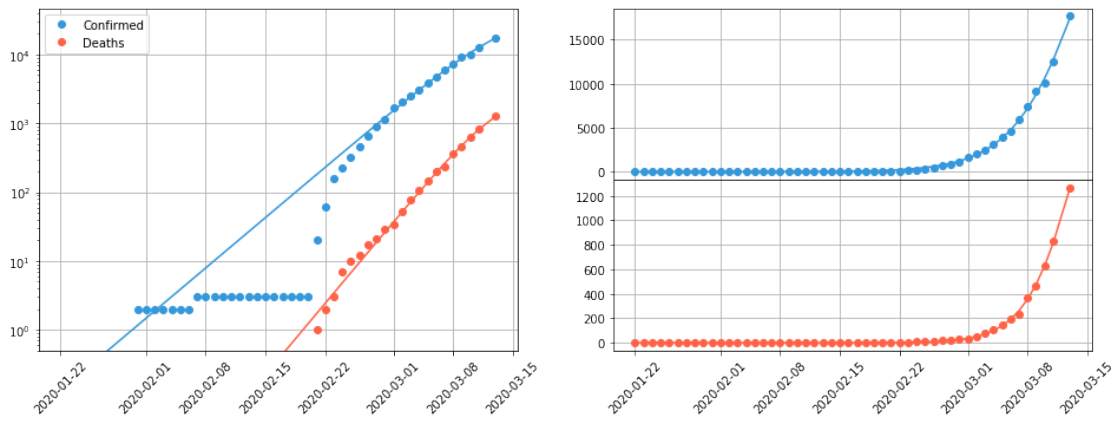
4 Other countries

Show plots for the most affected country/province

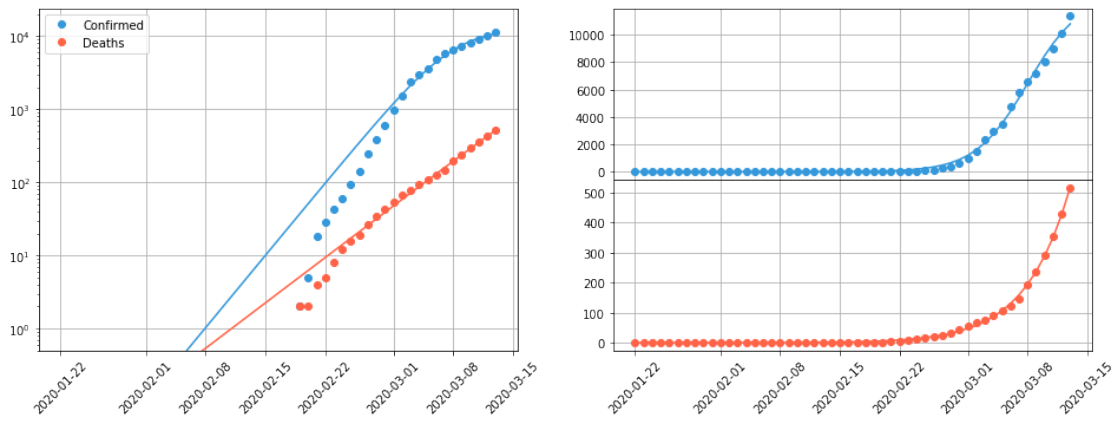
China Hubei
Date range: 2020-01-02 to 2021-03-12



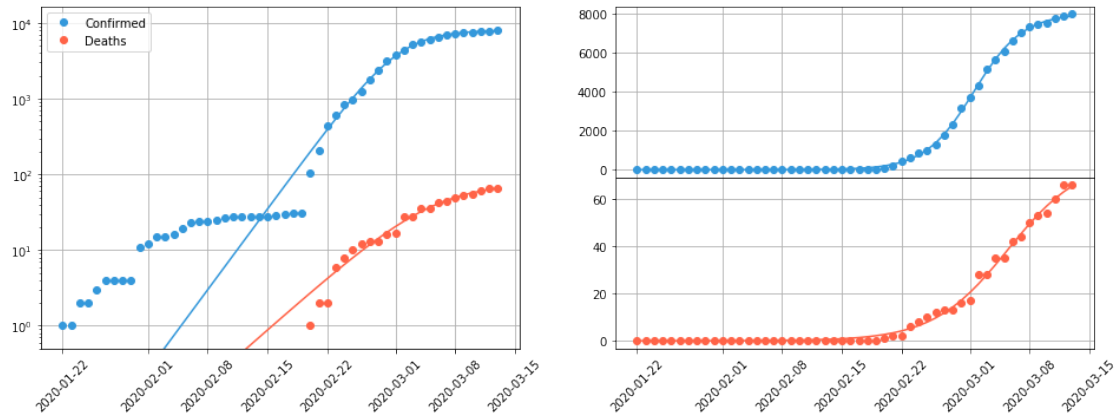
Italy
Date range: 2020-01-02 to 2021-03-12



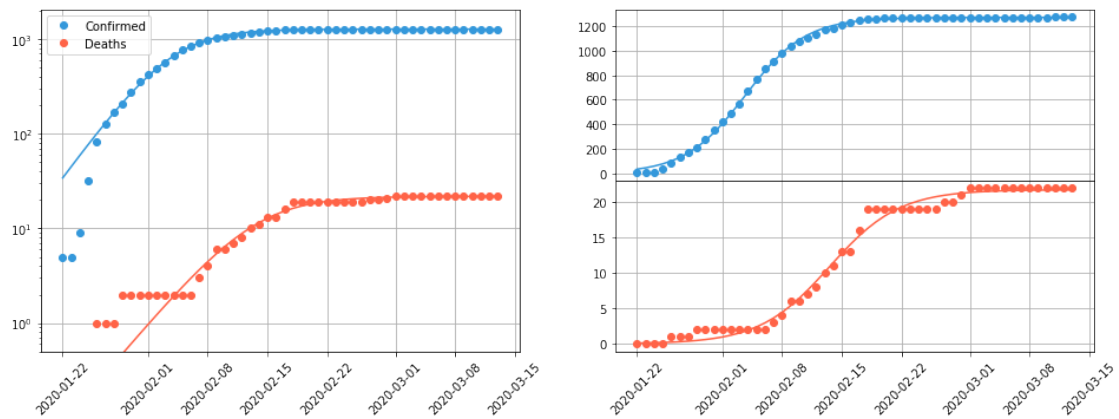
Iran
Date range: 2020-01-02 to 2021-03-12



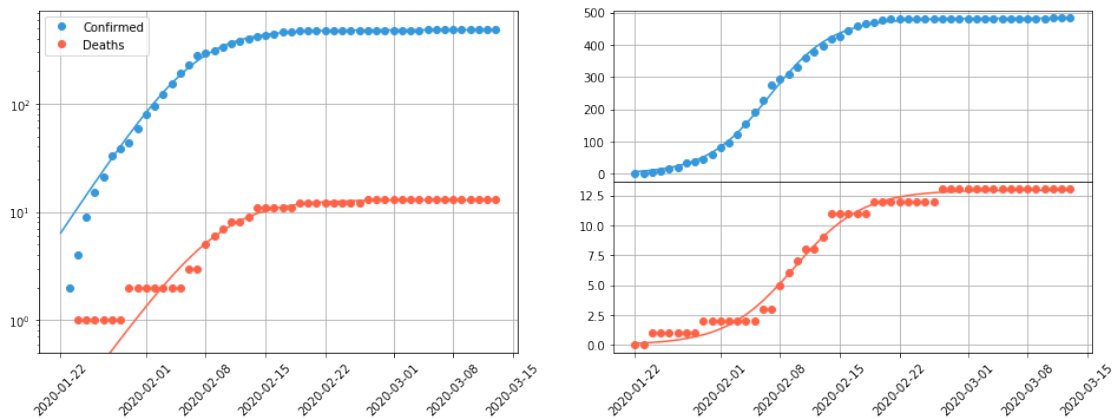
Korea, South
Date range: 2020-01-02 to 2021-03-12



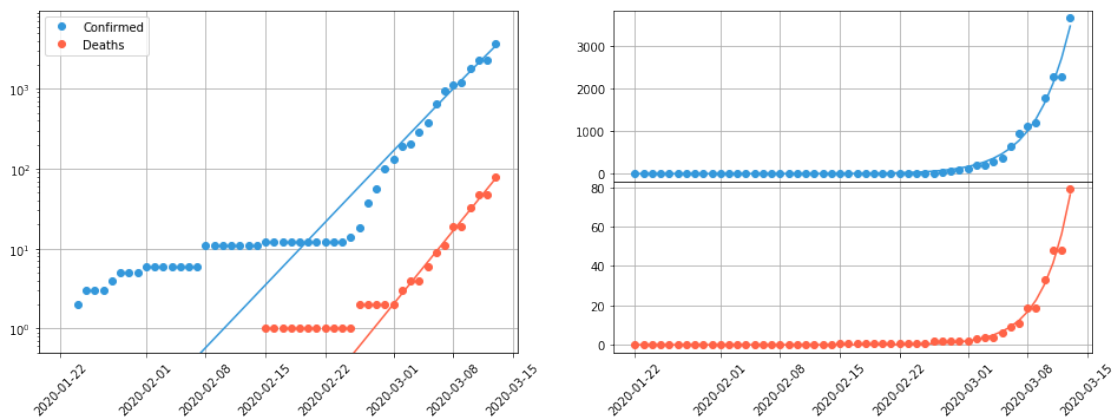
China Henan
Date range: 2020-01-02 to 2021-03-12



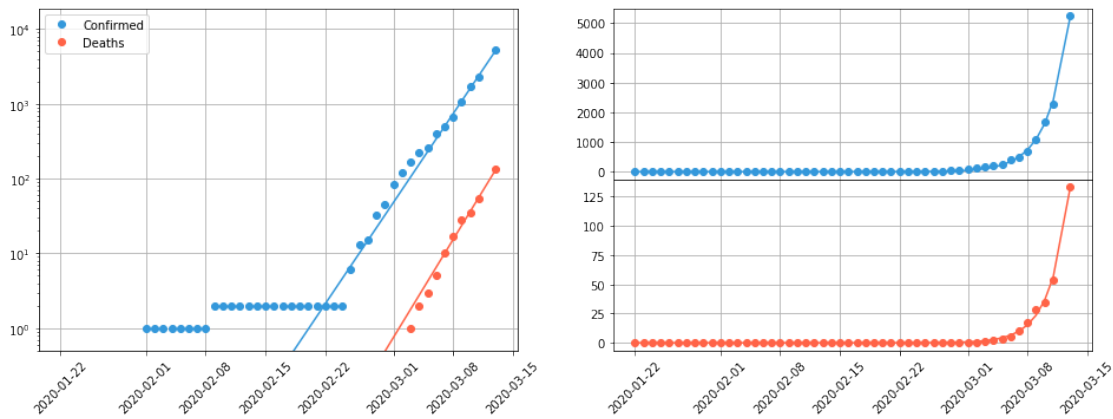
China Heilongjiang
Date range: 2020-01-02 to 2021-03-12



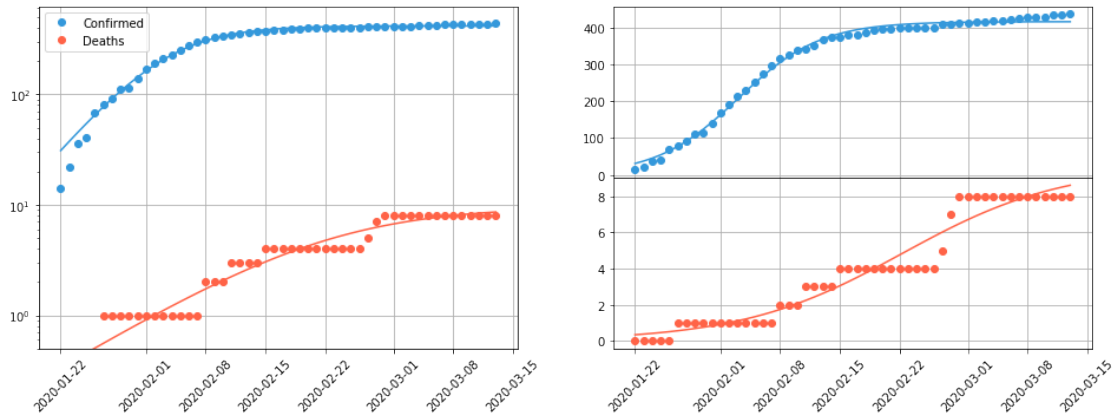
France France
Date range: 2020-01-02 to 2021-03-12



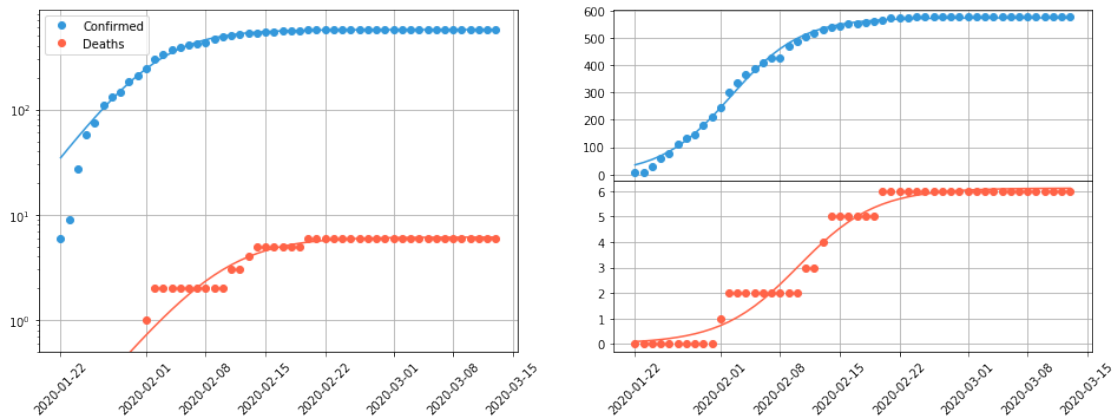
Spain
Date range: 2020-01-02 to 2021-03-12



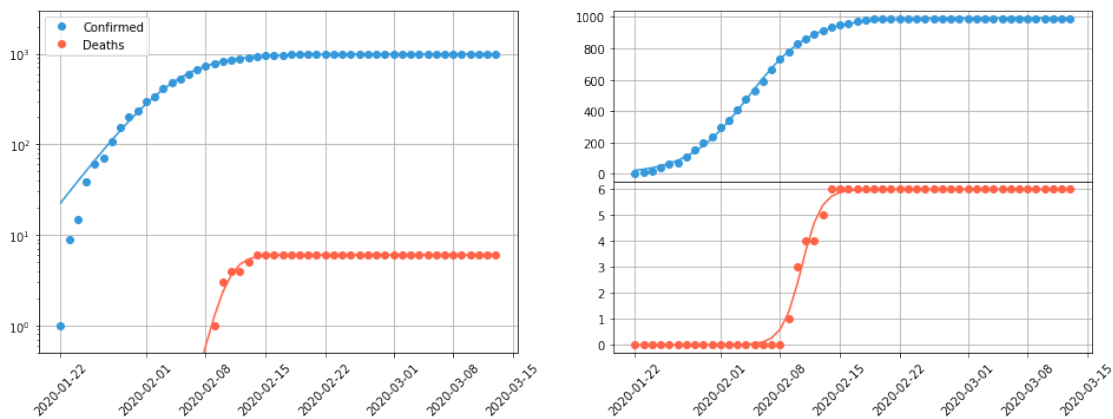
China Beijing
Date range: 2020-01-02 to 2021-03-12



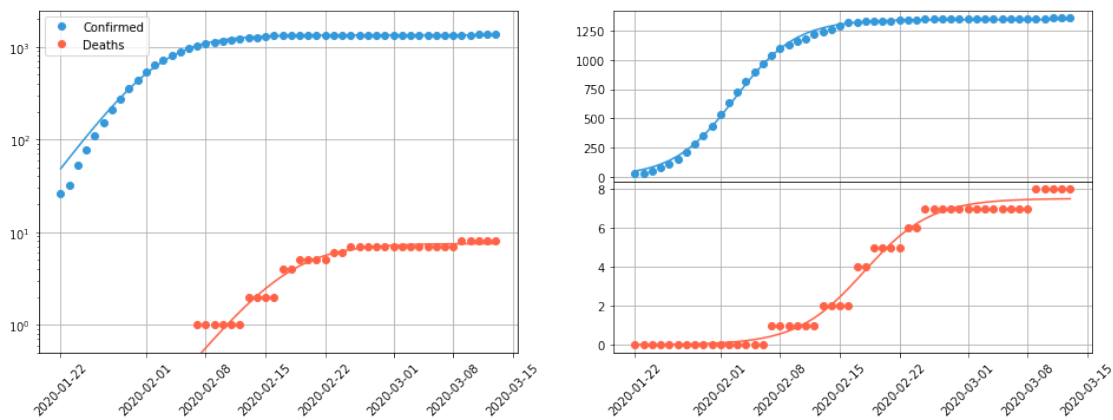
China Chongqing
Date range: 2020-01-02 to 2021-03-12



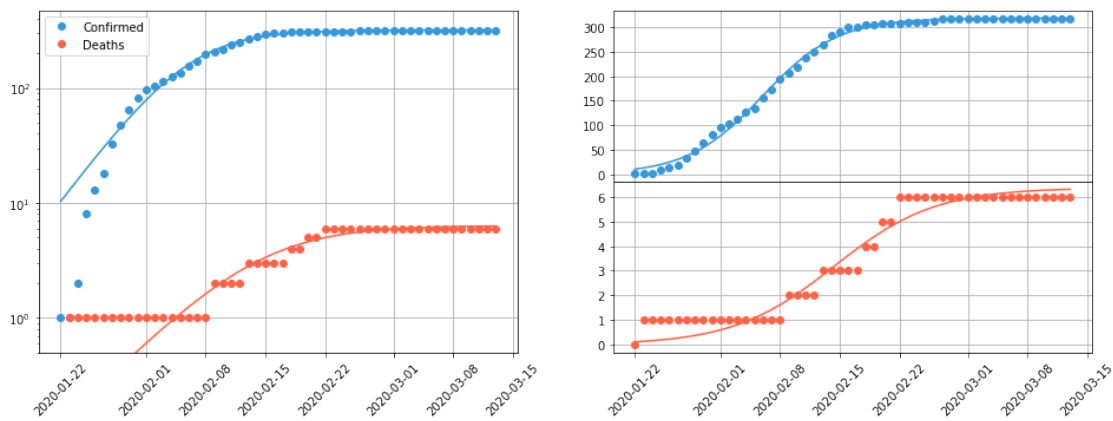
China Anhui
Date range: 2020-01-02 to 2021-03-12



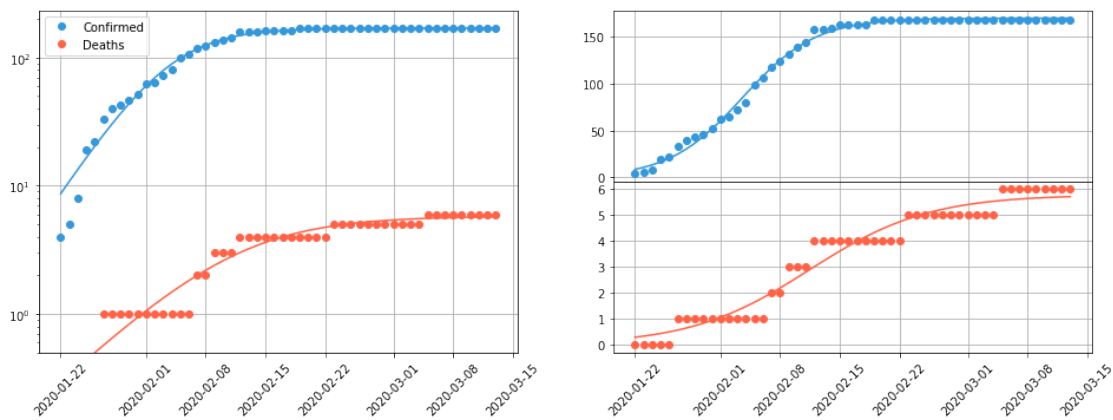
China Guangdong
Date range: 2020-01-02 to 2021-03-12



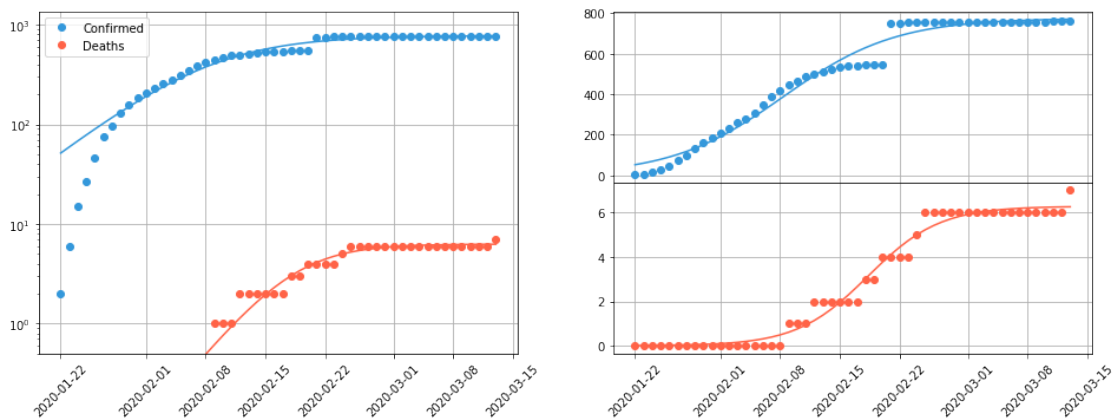
China Hebei
Date range: 2020-01-02 to 2021-03-12



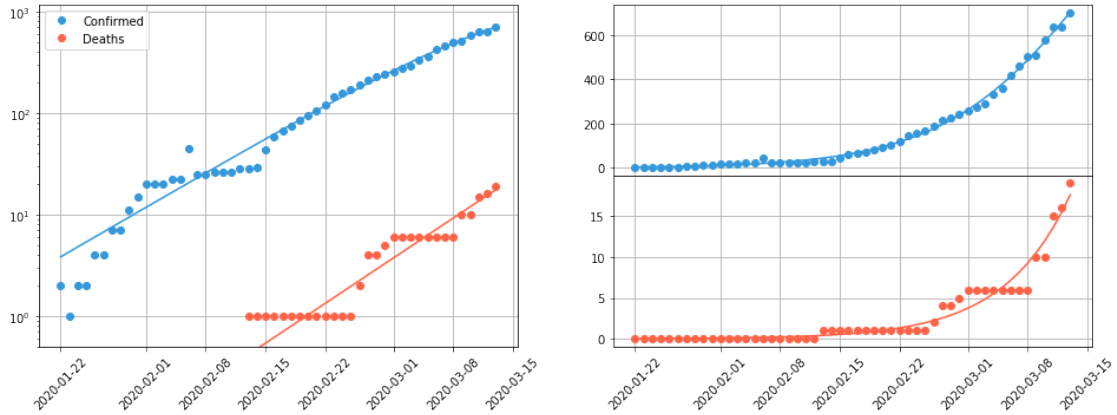
China Hainan
Date range: 2020-01-02 to 2021-03-12



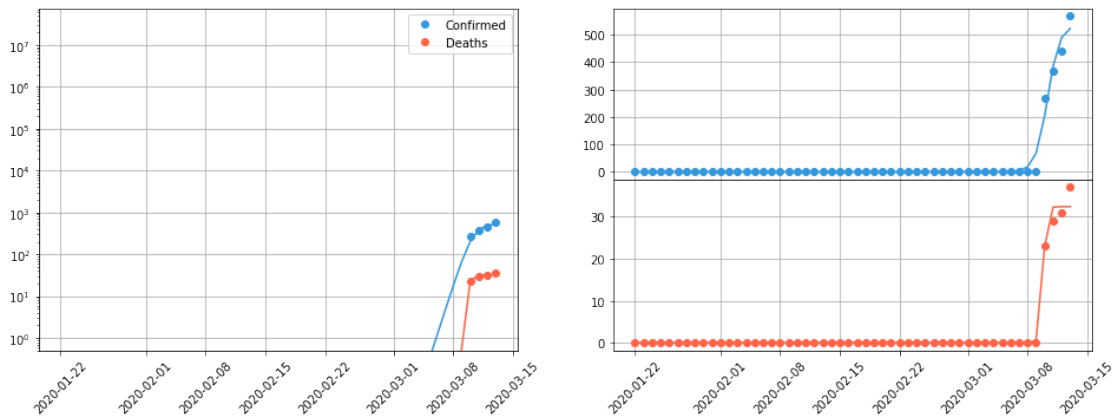
China Shandong
Date range: 2020-01-02 to 2021-03-12



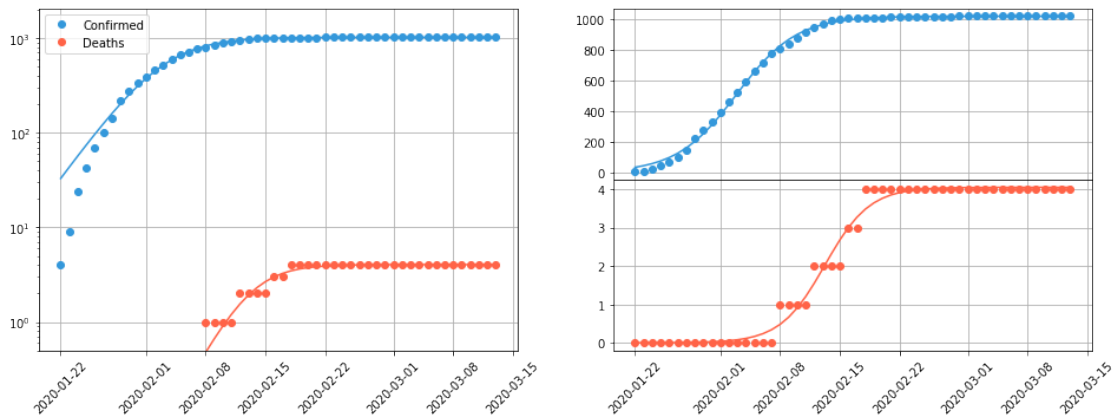
Japan
Date range: 2020-01-02 to 2021-03-12



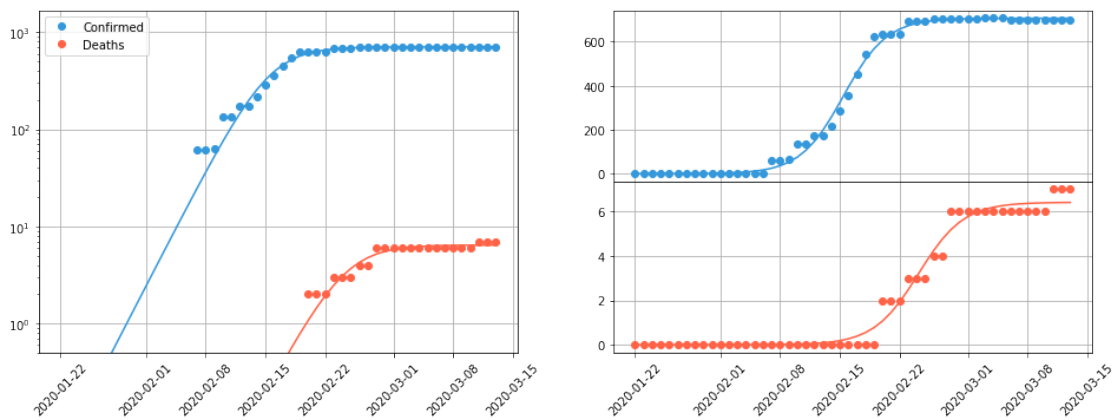
US Washington
Date range: 2020-01-02 to 2021-03-12



China Hunan
Date range: 2020-01-02 to 2021-03-12



Cruise Ship Diamond Princess
Date range: 2020-01-02 to 2021-03-12



China Tianjin
Date range: 2020-01-02 to 2021-03-12

