

---

# **ambigauss Documentation**

***Release***

**Jeremy Anderson, Andrew Carpenter, Joseph Harman, Pablo Rom**

**Apr 12, 2018**



---

## Contents:

---

<b>1</b>	<b>API Design</b>	<b>1</b>
1.1	Base Model . . . . .	1
1.2	Gaussian spectrum . . . . .	1
1.3	Voigt spectrum . . . . .	2
<b>2</b>	<b>Indices and tables</b>	<b>3</b>



# CHAPTER 1

---

## API Design

---

### 1.1 Base Model

```
model = GaussianFitter(n_peaks=2)

df = pd.DataFrame({
    'x' : [0, 1, 2],
    'y' : [0, 10, 50],
    'y2': [0, 5, 10]
})

model.fit(x=df.x, y=df.y)

model.score()

model.centers
model.widths
model.heights

model.plot()
```

### 1.2 Gaussian spectrum

```
# Import gaussian
from ambigauss import GaussianSpectrum

# Initialize a model.
m = GaussianSpectrum(n_peaks=3)

# Fit data.
m.fit(x, y)
```

```
# Plot data
m.plot()

# Print parameters
m.print_parameters()
```

## 1.3 Voigt spectrum

```
# Import gaussian
from ambigauss import VoigtSpectrum

# Initialize a model.
m = VoigtSpectrum(n_peaks=3)

# Fit data.
m.fit(x, y)

# Plot data
m.plot()

# Print parameters
m.print_parameters()
```

## CHAPTER 2

---

### Indices and tables

---

- genindex
- modindex
- search