plotly | Graphing Libraries (https://plotly.com/)(/graphing-libraries/)

utm_campaign=studio_cloud_launch&utm_content=sidebar)

Python (/python) > (/python/) > LaTeX   ⬥ Suggest an edit to this page(https://github.com/plotly/plotly.py/edit/doc-prod/doc/python/LaTeX.md)
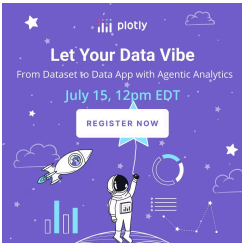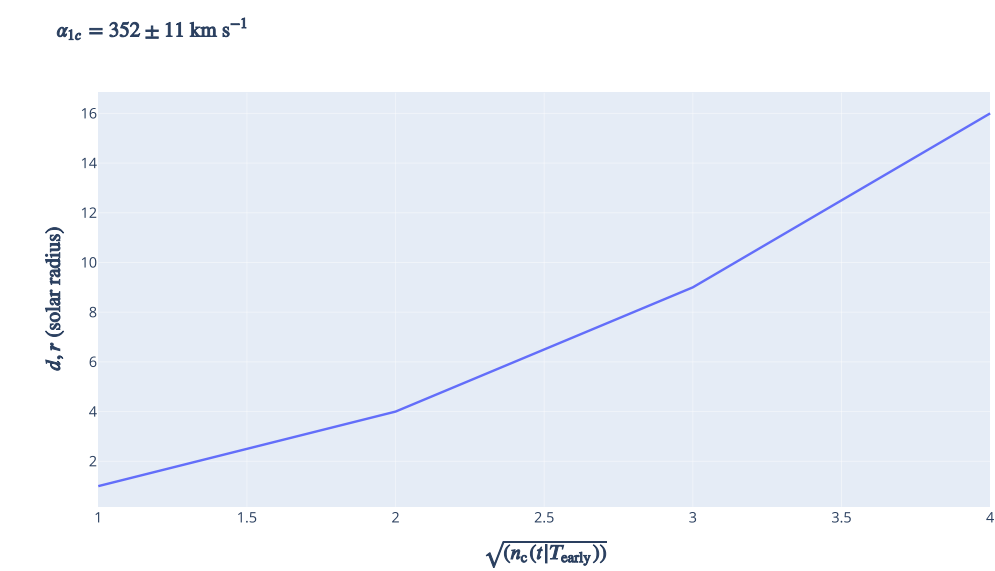
LaTeX in Python

How to add LaTeX to python graphs.

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LaTeX Typesetting

Figure titles, axis labels and annotations all accept LaTeX directives for rendering mathematical formulas and notation, when the entire label is surrounded by dollar signs $...$. This rendering is handled by the MathJax library (https://www.npmjs.com/package/mathjax?activeTab=versions), which must be loaded in the environment where figures are being rendered. MathJax is included by default in Jupyter-like environments. When embedding Plotly figures in other contexts it may be required to ensure that MathJax is separately loaded, for example via a <script> tag pointing to a content-delivery network (CDN). Versions 2 and 3 are supported.
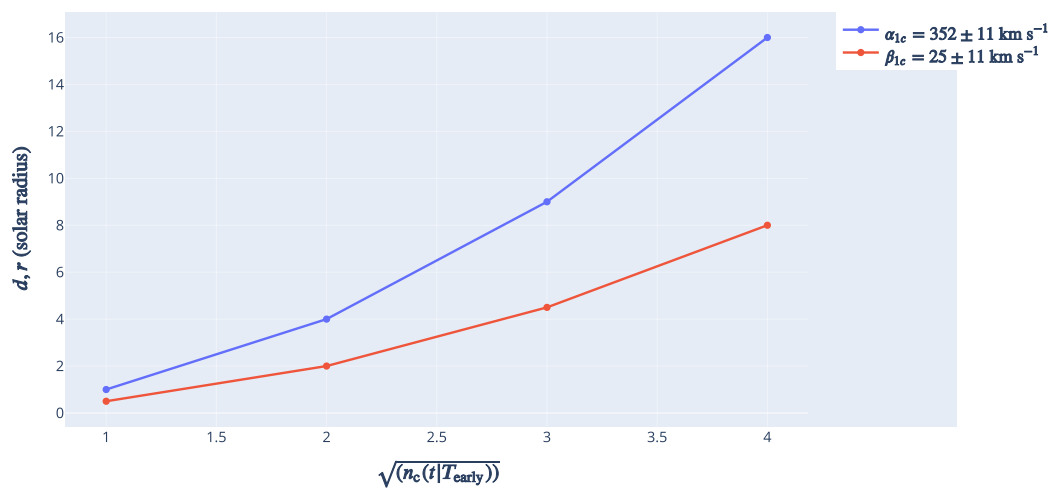
```
import plotly.express as px

fig = px.line(x=[1, 2, 3, 4], y=[1, 4, 9, 16], title=r'$\alpha_{1c} = 352 \pm 11 \text{ km s}^{-1}$')
fig.update_layout(
    xaxis_title=r'$\sqrt{(n_\text{c}(t|{T_\text{early}})))}$',
    yaxis_title=r'$d, r \text{ (solar radius)}$'
)
fig.show()
```

```python
import plotly.graph_objs as go

fig = go.Figure()
fig.add_trace(go.Scatter(
    x=[1, 2, 3, 4],
    y=[1, 4, 9, 16],
    name=r'$\alpha_{1c} = 352 \pm 11 \text{ km s}^{-1}$'
))
fig.add_trace(go.Scatter(
    x=[1, 2, 3, 4],
    y=[0.5, 2, 4.5, 8],
    name=r'$\beta_{1c} = 25 \pm 11 \text{ km s}^{-1}$'
))
fig.update_layout(
    xaxis_title=r'$\sqrt{(n_\text{c}(t|{T_\text{early}}))}$',
    yaxis_title=r'$d, r \text{ (solar radius)}$'
)
fig.show()
```


What About Dash?

Dash (https://dash.plot.ly/) is an open-source framework for building analytical applications, with no Javascript required, and it is tightly integrated with the Plotly graphing library.

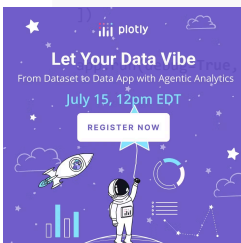Learn about how to install Dash at https://dash.plot.ly/installation (https://dash.plot.ly/installation).

Everywhere in this page that you see fig.show(), you can display the same figure in a Dash application by passing it to the figure argument of the Graph component (https://dash.plot.ly/dash-core-components/graph) from the built-in dash_core_components package like this:

```python
import plotly.graph_objects as go # or plotly.express as px
fig = go.Figure() # or any Plotly Express function e.g. px.bar(...)
# fig.add_trace( ... )
# fig.update_layout( ... )

from dash import Dash, dcc, html

app = Dash()
app.layout = html.Div([
    dcc.Graph(figure=fig)

                    use_reloader=False)  # Turn off reloader if inside Jupyter
```

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