```
X = bos.dndlogdp.index
Y = bos.midpoints
Z = bos.dndlogdp.T.values

ax = smps.plots.heatmap(
    X, Y, Z,
    cmap='viridis',
    fig_kws=dict(figsize=(14, 6))
)

# Let's make the x-axis look a little nicer
import matplotlib.dates as dates

ax.xaxis.set_minor_locator(dates.HourLocator(byhour=[0, 6, 12, 18]))
ax.xaxis.set_major_formatter(dates.DateFormatter("%d\n%b\n%Y"))

# Go ahead and change things!
ax.set_title("Cambridge, MA Wintertime SMPS Data", y=1.02, fontsize=20);
```

```
---------------------------------------------------------------------------
UFuncTypeError                            Traceback (most recent call last)
<ipython-input-5-ab68e0d614a9> in <module>
      3 Z = bos.dndlogdp.T.values
      4
----> 5 ax = smps.plots.heatmap(
      6     X, Y, Z,
      7     cmap='viridis',

/opt/anaconda3/lib/python3.8/site-packages/smps/plots.py in heatmap(X, Y, Z, ax, logy, cbar, hide_low, cmap, fig_kws, cbar_kws, plot_kws, **kwargs)
    105
    106     # Plot the data as a pcolormesh
--> 107     im = ax.pcolormesh(X, Y, Z_plot, shading='auto', **plot_kws)
    108
    109     # Set the ylim to match the data

/opt/anaconda3/lib/python3.8/site-packages/matplotlib/__init__.py in inner(ax, data, *args, **kwargs)
   1436     def inner(ax, *args, data=None, **kwargs):
   1437         if data is None:
-> 1438             return func(ax, *map(sanitize_sequence, args), **kwargs)
   1439
   1440         bound = new_sig.bind(ax, *args, **kwargs)

/opt/anaconda3/lib/python3.8/site-packages/matplotlib/axes/_axes.py in pcolormesh(self, alpha, norm, cmap, vmin, vmax, shading, antialiased, *args, **kwargs)
   6091         kwargs.setdefault('edgecolors', 'None')
   6092
-> 6093         X, Y, C, shading = self._pcolorargs('pcolormesh', *args,
   6094                                             shading=shading)
   6095         Ny, Nx = X.shape

/opt/anaconda3/lib/python3.8/site-packages/matplotlib/axes/_axes.py in _pcolorargs(funcname, shading, *args)
   5649
   5650                 if ncols == Nx:
-> 5651                     X = _interp_grid(X)
   5652                     Y = _interp_grid(Y)
   5653                 if nrows == Ny:

/opt/anaconda3/lib/python3.8/site-packages/matplotlib/axes/_axes.py in _interp_grid(X)
   5631                     if np.shape(X)[1] > 1:
   5632                         dX = np.diff(X, axis=1)/2.
-> 5633                         if not (np.all(dX >= 0) or np.all(dX <= 0)):
   5634                             cbook._warn_external(
   5635                                 f"The input coordinates to {funcname} are "

UFuncTypeError: Cannot cast ufunc 'greater_equal' input 0 from dtype('<m8[ns]') to dtype('<m8') with casting rule 'same_kind'
```