

In[200]:=

```
Charting`$InteractiveHighlighting = False
```

Out[200]=

False

In[179]:=

```
data = Join[Dataset[Import[ToString@StringForm[
    "/Users/giovannigravili/Library/Mobile Documents/com~apple~
    CloudDocs/LM MANO/Notebooks/HS/data/ALL000``.CSV",
    #], "Table", "HeaderLines" → 18, "FieldSeparators" → ",",
    "NumberPoint" → ".", CharacterEncoding → "UTF8"]][
    All, Range[1, 2]][All, <|"t (s)" → 1, "V (V)" → 2|>] & /@
    Range[1, 9], Dataset[Import[ToString@StringForm[
    "/Users/giovannigravili/Library/Mobile Documents/com~apple~
    CloudDocs/LM MANO/Notebooks/HS/data/ALL00``.CSV",
    #], "Table", "HeaderLines" → 18, "FieldSeparators" → ",",
    "NumberPoint" → ".", CharacterEncoding → "UTF8"]][All, Range[1, 2]][
    All, <|"t (s)" → 1, "V (V)" → 2|>] & /@ Range[10, 17]];
```

In[180]:=

```
Length@data
```

Out[180]=

17

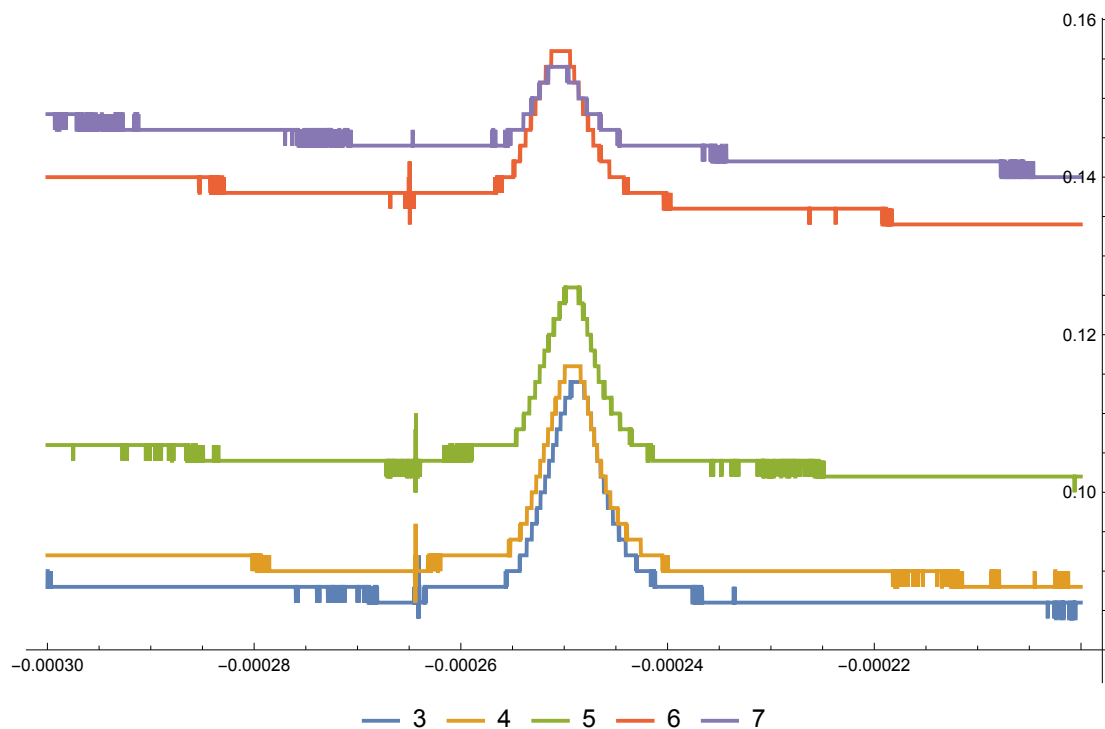
In[181]:=

```
data3to7 =
    Transpose[{#[All, "t (s)"], #[All, "V (V)"]} // Normal] & /@ Take[data, {3, 7}];
```

In[196]:=

```
ListLinePlot[data3to7, ImageSize → Large,
    PlotLegends → Placed[Range[3, 7], Below]]
```

Out[196]=



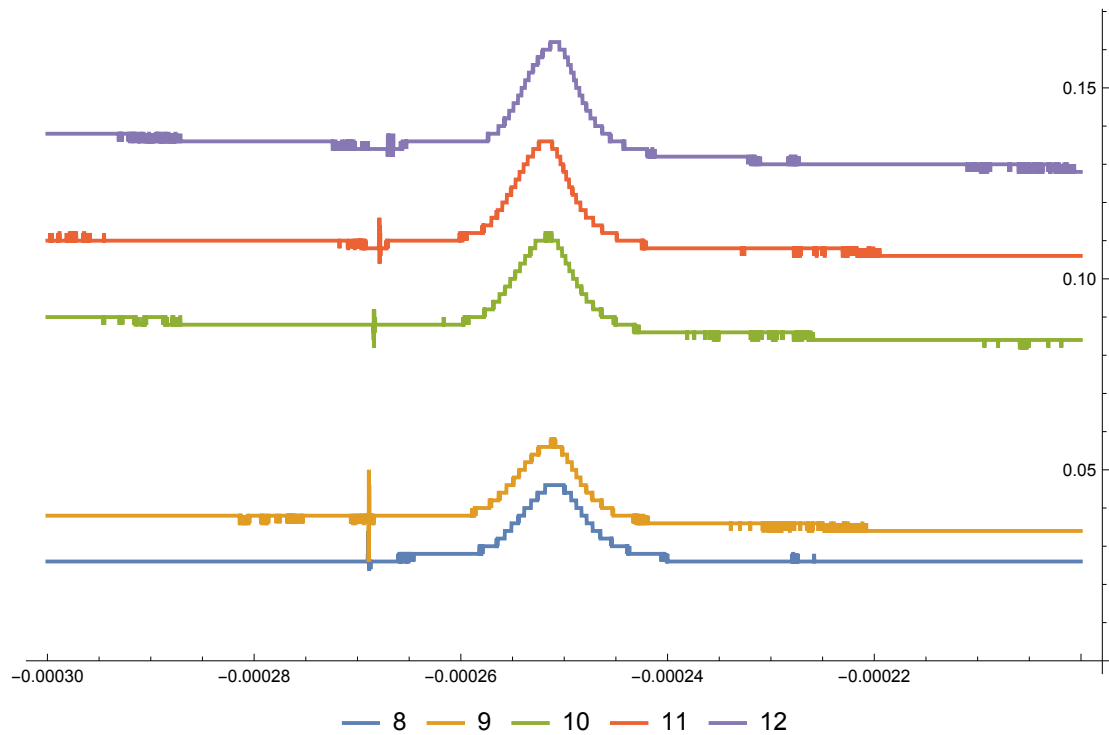
In[183]:=

```
data8to12 =
  Transpose[{{#[All, "t (s)"], #[All, "V (V)"]}} // Normal] & /@ Take[data, {8, 12}];
```

In[201]:=

```
ListLinePlot[data8to12, ImageSize → Large,
  PlotLegends → Placed[Range[8, 12], Below]]
```

Out[201]=



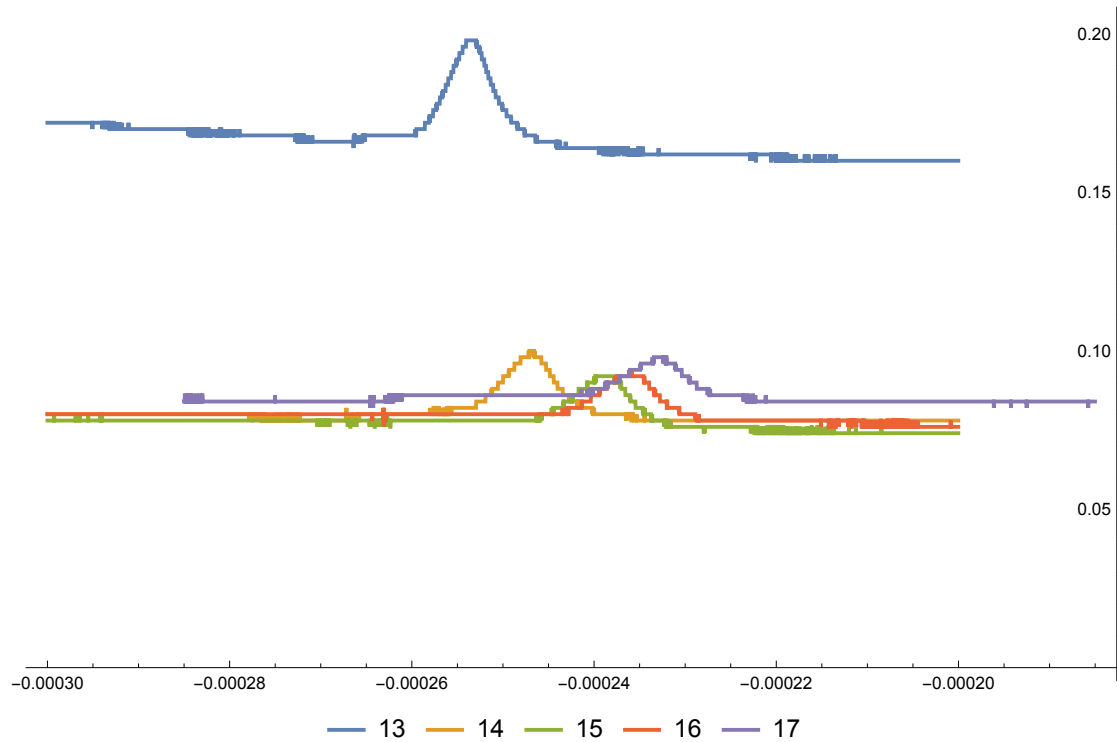
In[185]:=

```
data13to17 =
  Transpose[{{#[All, "t (s)"], #[All, "V (V)"]}} // Normal] & /@ Take[data, {13, 17}];
```

In[194]:=

```
ListLinePlot[data13to17, ImageSize → Large,  
PlotLegends → Placed[Range[13, 17], Below]]
```

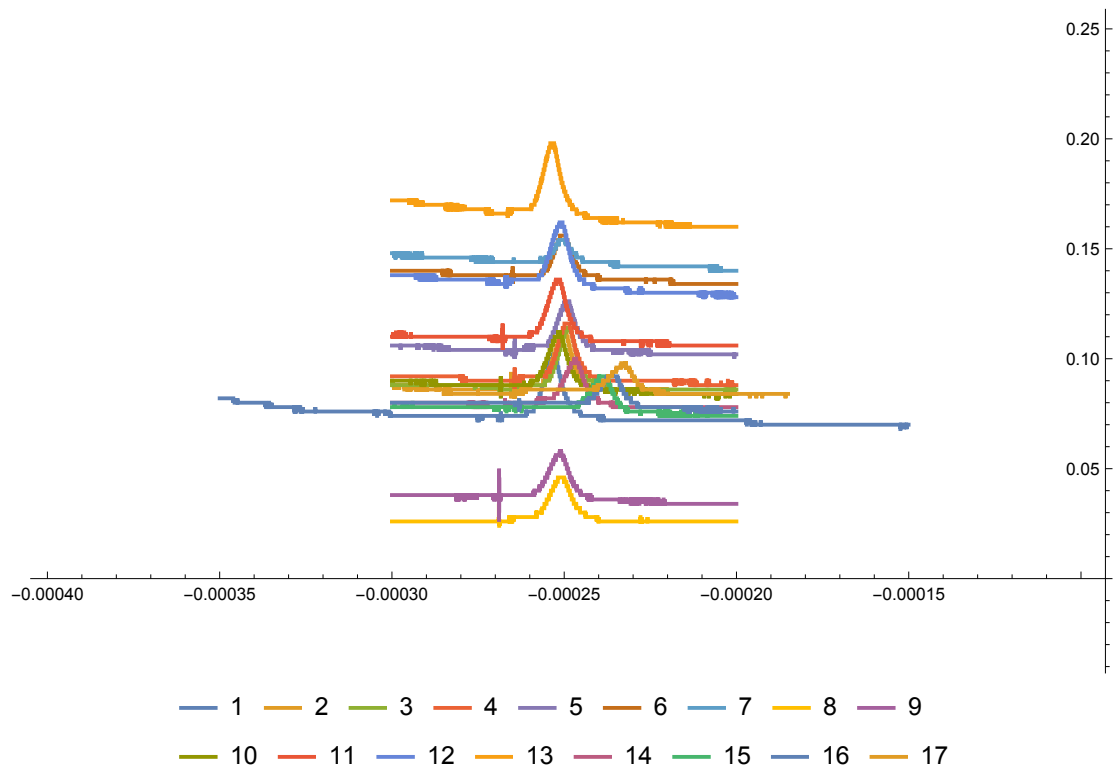
Out[194]=



In[197]:=

```
ListLinePlot[data2, PlotLegends → Placed[Range[1, 17], Below], ImageSize → Large]
```

Out[197]=



In[188]:=

```

datalast = Dataset[Import[ToString@StringForm[
    "/Users/giovannigravili/Library/Mobile Documents/com~apple~CloudDocs
    /LM MANO/Notebooks/HS/data/ALL00` `.CSV",
    #], "Table", "HeaderLines" → 18, "FieldSeparators" → ",",
    "NumberPoint" → ".", CharacterEncoding → "UTF8"]][
    All, Range[1, 4]] [All, <|"t1 (s)" → 1, "Vx (V)" → 2,
    "t2 (s)" → 3, "Vy (V)" → 4|>] & /@ Range[18, 19];

```

In[189]:=

```

datalast2 = Transpose[{#[All, "Vx (V)"], #[All, "Vy (V)"]} // Normal] & /@ datalast;

```

In[190]:=

```

Length@First@datalast2

```

Out[190]=

```

5000

```

In[191]:=

```

fit = NonlinearModelFit[First@datalast2, -a Exp[k (x - x0)] + b, {a, b, k, x0}, x]

```

Out[191]=

```

FittedModel[ $1.24089 - 0.00704839 e^{0.695075 (-1.53499 + x)}$ ]

```

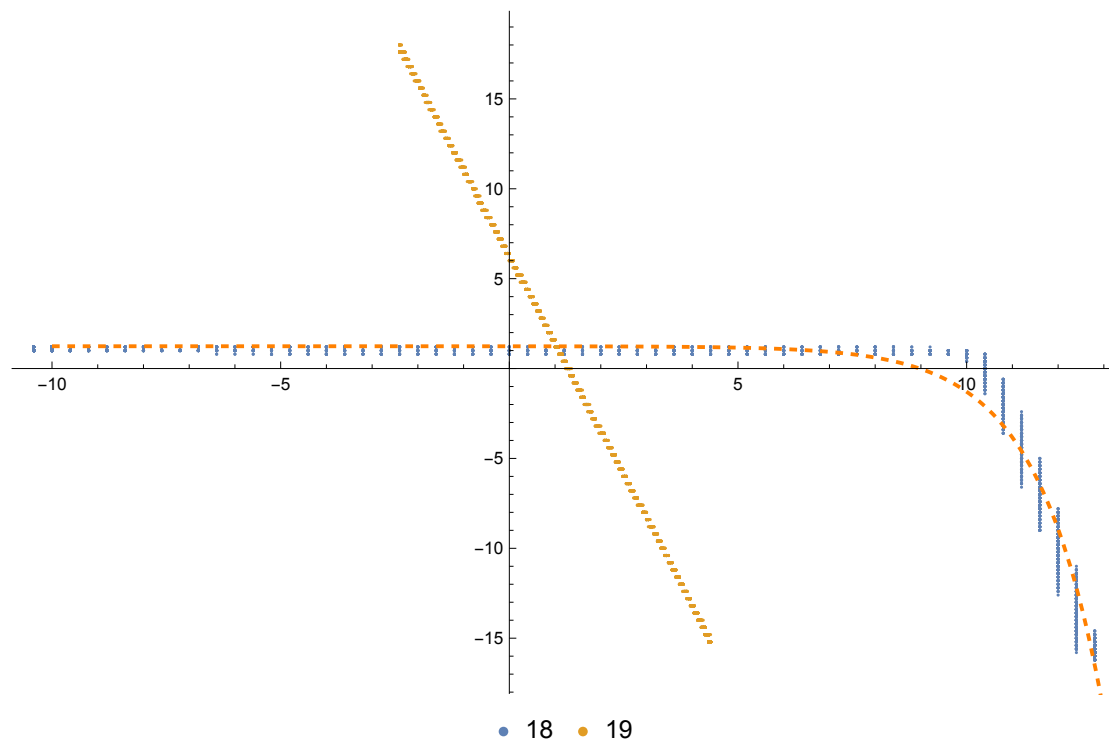
In[202]:=

```

Show[ListPlot[datalast2, ImageSize → Large,
    PlotLegends → Placed[{18, 19}, Below], PlotRange → All],
    Plot[fit[x], {x, -10, 18}, ImageSize → Large, PlotStyle → {Dashed, Orange}]]

```

Out[202]=



In[193]:=