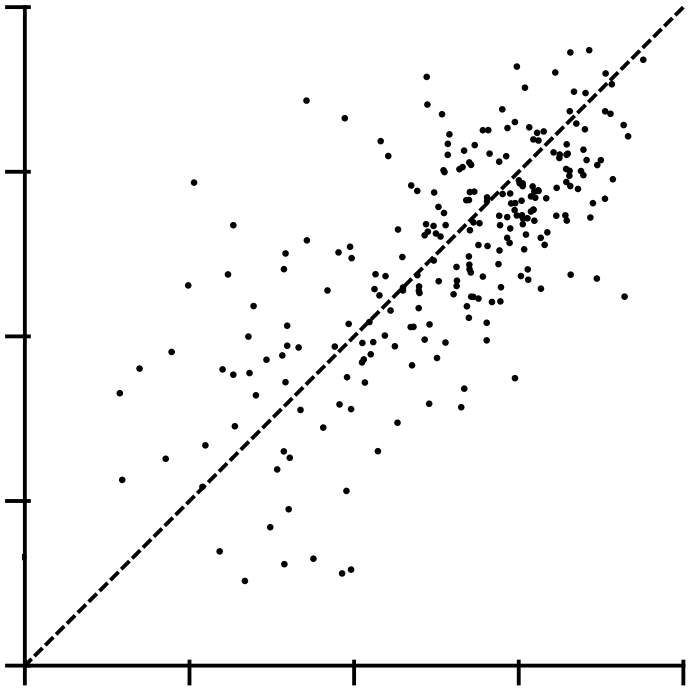
```
(***Note: Values for generating these plots are embedded within the raw data set,
which is too large to upload onto the public data repository***)

v1Color = RGBColor["#ff1f5b"];

lpColor = RGBColor["#009ade"];

lmColor = RGBColor["#f28522"];

controlColor = Black;

(**************************)

dateMouseListControl = {{"113021", "Mouse22428"},
   {"120221", "Mouse22525"}, {"121621", "Mouse22525"}, {"010622", "Mouse22598"},
   {"011122", "Mouse22598"}, {"121121", "Mouse22599"}, {"121721", "Mouse22599"},
   {"012122", "Mouse22550"}, {"011622", "Mouse22550"}, {"012322", "Mouse22549"},
   {"012822", "Mouse22549"}, {"032923", "Mouse23149"}, {"033123", "Mouse23149"}};

(***V1 axons, eOPN3***)

dateMouseListV1axons =
  {{"120921", "Mouse22485"}, {"121821", "Mouse22485"}, {"011222", "Mouse22501"},
   {"011822", "Mouse22504"}, {"012722", "Mouse22504"}, {"012322", "Mouse22575"}};

(***LPaxons, eOPN3***)

dateMouseListLPaxons = {{"020922", "Mouse22413"},
   {"021422", "Mouse22413"}, {"020122", "Mouse22514"}, {"012822", "Mouse22514"},
   {"021122", "Mouse22519"}, {"021322", "Mouse22519"}, {"021122", "Mouse22535"},
   {"021522", "Mouse22535"}, {"031522", "Mouse22521"}, {"031922", "Mouse22521"}};

(***LM axons, eOPN3***)

dateMouseListLMaxons =
  {{"022022", "Mouse22563"}, {"022222", "Mouse22563"}, {"031722", "Mouse22539"},
   {"031722", "Mouse22570"}, {"032022", "Mouse22539"}, {"032022", "Mouse22570"}};

(**************************)

pairedROIsListControl =
  Table[ToExpression /@ Import[StringJoin["S:/Imaging/Garrett/FMB208_2PRig/",
      dateMouseListControl[[n, 1]], "/", dateMouseListControl[[n, 2]],
      "/PairedAnalysis/", dateMouseListControl[[n, 1]], "_", dateMouseListControl[[n, 2]],
      "_pairedROIsLoc.txt"], "List"], {n, 1, Length[dateMouseListControl]}];

pairedROIsListV1axons =
  Table[ToExpression /@ Import[StringJoin["S:/Imaging/Garrett/FMB208_2PRig/",
      dateMouseListV1axons[[n, 1]], "/", dateMouseListV1axons[[n, 2]],
      "/PairedAnalysis/", dateMouseListV1axons[[n, 1]], "_", dateMouseListV1axons[[n, 2]],
      "_pairedROIsLoc.txt"], "List"], {n, 1, Length[dateMouseListV1axons]}];

pairedROIsListLPaxons =
  Table[ToExpression /@ Import[StringJoin["S:/Imaging/Garrett/FMB208_2PRig/",
      dateMouseListLPaxons[[n, 1]], "/", dateMouseListLPaxons[[n, 2]],
      "/PairedAnalysis/", dateMouseListLPaxons[[n, 1]], "_", dateMouseListLPaxons[[n, 2]],
      "_pairedROIsLoc.txt"], "List"], {n, 1, Length[dateMouseListLPaxons]}];
```

```
In[ ]:= pairedROIsListLMaxons =
  Table[ToExpression /@ Import[StringJoin["S:/Imaging/Garrett/FMB208_2PRig/",
      dateMouseListLMaxons[[n, 1]], "/", dateMouseListLMaxons[[n, 2]],
      "/PairedAnalysis/", dateMouseListLMaxons[[n, 1]], "_", dateMouseListLMaxons[[n, 2]],
      "_pairedROIsLoc.txt"], "List"], {n, 1, Length[dateMouseListLMaxons]}];

In[ ]:= (***Before-After paired loc mod indices***)

In[ ]:= pairedLocModIndexSummaryValsControl =
  ToExpression /@ Flatten[Table[Table[ToExpression /@ Import[StringJoin[
          "S:/Imaging/Garrett/FMB208_2PRig/", dateMouseListControl[[n, 1]], "/",
          dateMouseListControl[[n, 2]], "/", "/PairedAnalysis/", dateMouseListControl[[
           n, 1]], "_", dateMouseListControl[[n, 2]], "_", "locModPaired_ROI",
          ToString[roi], ".txt"], "List"], {roi, pairedROIsListControl[[n]]}],
      {n, 1, Length[dateMouseListControl]}], 1][[All, 2]];

In[ ]:= modIndicesLocControl = Table[
    (pairedLocModIndexSummaryValsControl[[n, 2]] - pairedLocModIndexSummaryValsControl[[
       n, 1]]) / (pairedLocModIndexSummaryValsControl[[n, 2]] +
      pairedLocModIndexSummaryValsControl[[n, 1]]),
    {n, 1, Length[pairedLocModIndexSummaryValsControl]}];

In[ ]:= pairedLocModIndexSummaryValsV1axons =
  ToExpression /@ Flatten[Table[Table[ToExpression /@ Import[StringJoin[
          "S:/Imaging/Garrett/FMB208_2PRig/", dateMouseListV1axons[[n, 1]], "/",
          dateMouseListV1axons[[n, 2]], "/", "/PairedAnalysis/", dateMouseListV1axons[[
           n, 1]], "_", dateMouseListV1axons[[n, 2]], "_", "locModPaired_ROI",
          ToString[roi], ".txt"], "List"], {roi, pairedROIsListV1axons[[n]]}],
      {n, 1, Length[dateMouseListV1axons]}], 1][[All, 2]];

In[ ]:= modIndicesLocV1axons = Table[
    (pairedLocModIndexSummaryValsV1axons[[n, 2]] - pairedLocModIndexSummaryValsV1axons[[
       n, 1]]) / (pairedLocModIndexSummaryValsV1axons[[n, 2]] +
      pairedLocModIndexSummaryValsV1axons[[n, 1]]),
    {n, 1, Length[pairedLocModIndexSummaryValsV1axons]}];

In[ ]:= pairedLocModIndexSummaryValsLPaxons =
  ToExpression /@ Flatten[Table[Table[ToExpression /@ Import[StringJoin[
          "S:/Imaging/Garrett/FMB208_2PRig/", dateMouseListLPaxons[[n, 1]], "/",
          dateMouseListLPaxons[[n, 2]], "/", "/PairedAnalysis/", dateMouseListLPaxons[[
           n, 1]], "_", dateMouseListLPaxons[[n, 2]], "_", "locModPaired_ROI",
          ToString[roi], ".txt"], "List"], {roi, pairedROIsListLPaxons[[n]]}],
      {n, 1, Length[dateMouseListLPaxons]}], 1][[All, 2]];

In[ ]:= modIndicesLocLPaxons = Table[
    (pairedLocModIndexSummaryValsLPaxons[[n, 2]] - pairedLocModIndexSummaryValsLPaxons[[
       n, 1]]) / (pairedLocModIndexSummaryValsLPaxons[[n, 2]] +
      pairedLocModIndexSummaryValsLPaxons[[n, 1]]),
    {n, 1, Length[pairedLocModIndexSummaryValsLPaxons]}];
```

```
In[ ]:= pairedLocModIndexSummaryValsLMaxons =
          ToExpression /@ Flatten[Table[Table[ToExpression /@ Import[StringJoin[
                   "S:/Imaging/Garrett/FMB208_2PRig/", dateMouseListLMaxons[[n, 1]], "/",
                   dateMouseListLMaxons[[n, 2]], "/", "/PairedAnalysis/", dateMouseListLMaxons[[
                    n, 1]], "_", dateMouseListLMaxons[[n, 2]], "_", "locModPaired_ROI",
                   ToString[roi], ".txt"], "List"], {roi, pairedROIsListLMaxons[[n]]}],
              {n, 1, Length[dateMouseListLMaxons]}], 1][[All, 2]];

In[ ]:= modIndicesLocLMaxons = Table[
          (pairedLocModIndexSummaryValsLMaxons[[n, 2]] - pairedLocModIndexSummaryValsLMaxons[[
              n, 1]]) / (pairedLocModIndexSummaryValsLMaxons[[n, 2]] +
             pairedLocModIndexSummaryValsLMaxons[[n, 1]]),
          {n, 1, Length[pairedLocModIndexSummaryValsLMaxons]}];

In[ ]:= (******************)

        (*********************************************)
        (*******Generate plots in Figure S7D***************)
        (*********************************************)

In[ ]:= controlLocModPairsPlotPts =
          Partition[Riffle[{0.4, 0.6} , #], 2] & /@ pairedLocModIndexSummaryValsControl;

In[ ]:= allLocModsControlDark = pairedLocModIndexSummaryValsControl[[All, 1]];

In[ ]:= allLocModsControlLED = pairedLocModIndexSummaryValsControl[[All, 2]];
```

```
Show[ListPlot[pairedLocModIndexSummaryValsControl, PlotRange → {{-1, 1}, {-1, 1}},
  AspectRatio → 1, FrameTicksStyle -> Directive[FontOpacity -> 0, FontSize -> 0],
  PlotStyle → {controlColor, PointSize[0.01]}, FrameTicks →
   {{LinTizcks[-1, 1, MajorTickLength → {0, .03}, MinorTickLength → {0, 0}], None},
    {LinTicks[-1, 1, MajorTickLength → {0, .03}, MinorTickLength → {0, 0}], None}},
  Axes → False, TicksStyle → Thick, FrameStyle → Thick,
  Frame → {{True, None}, {True, None}}],
 Plot[x, {x, -1, 1}, PlotStyle → {Black, Thick, Dashed}]]
```

Out[ ]=



In[ ]:= (***)

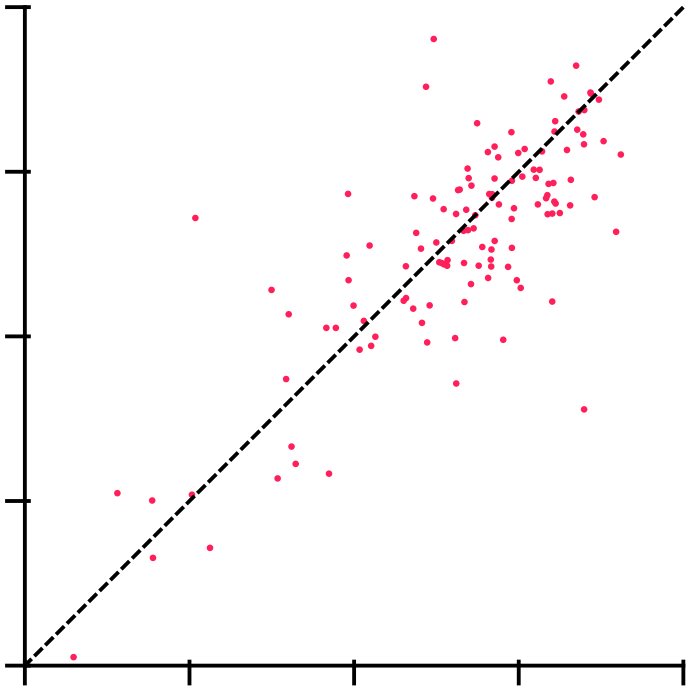
In[ ]:=
```
v1AxonsLocModPairsPlotPts =
  Partition[Riffle[{0.4, 0.6} , #], 2] & /@ pairedLocModIndexSummaryValsV1axons;
```

In[ ]:=
```
allLocModsV1axonsDark = pairedLocModIndexSummaryValsV1axons[[All, 1]];
```

In[ ]:=
```
allLocModsV1axonsLED = pairedLocModIndexSummaryValsV1axons[[All, 2]];
```

In[ ]:=
```
Show[ListPlot[pairedLocModIndexSummaryValsV1axons, PlotRange → {{-1, 1}, {-1, 1}},
  AspectRatio → 1, FrameTicksStyle -> Directive[FontOpacity -> 0, FontSize -> 0],
  PlotStyle → {v1Color, PointSize[0.01]}, FrameTicks →
   {{LinTicks[-1, 1, MajorTickLength → {0, .03}, MinorTickLength → {0, 0}], None},
    {LinTicks[-1, 1, MajorTickLength → {0, .03}, MinorTickLength → {0, 0}], None}},
  Axes → False, TicksStyle → Thick, FrameStyle → Thick,
  Frame → {{True, None}, {True, None}}],
 Plot[x, {x, -1, 1}, PlotStyle → {Black, Thick, Dashed}]]
```

Out[ ]=



In[ ]:=
```
(*****************************************)
```

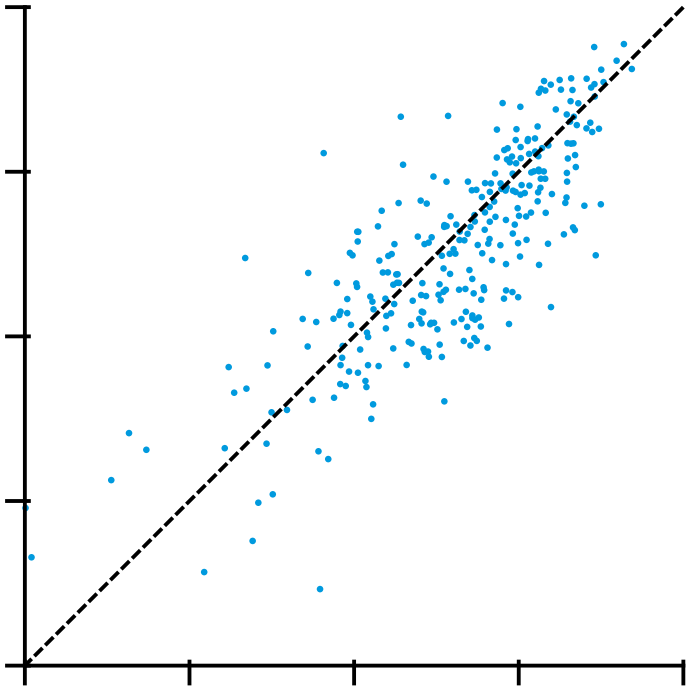
In[ ]:=
```
lpAxonsLocModPairsPlotPts =
  Partition[Riffle[{0.4, 0.6} , #], 2] & /@ pairedLocModIndexSummaryValsLPaxons;
```

In[ ]:=
```
allLocModsLPaxonsDark = pairedLocModIndexSummaryValsLPaxons[[All, 1]];
```

In[ ]:=
```
allLocModsLPaxonsLED = pairedLocModIndexSummaryValsLPaxons[[All, 2]];
```

In[ ]:=
```
Show[ListPlot[pairedLocModIndexSummaryValsLPaxons, PlotRange → {{-1, 1}, {-1, 1}},
  AspectRatio → 1, FrameTicksStyle -> Directive[FontOpacity -> 0, FontSize -> 0],
  PlotStyle → {lpColor, PointSize[0.01]}, FrameTicks →
   {{LinTicks[-1, 1, MajorTickLength → {0, .03}, MinorTickLength → {0, 0}], None},
    {LinTicks[-1, 1, MajorTickLength → {0, .03}, MinorTickLength → {0, 0}], None}},
  Axes → False, TicksStyle → Thick, FrameStyle → Thick,
  Frame → {{True, None}, {True, None}}],
 Plot[x, {x, -1, 1}, PlotStyle → {Black, Thick, Dashed}]]
```

Out[ ]=



In[ ]:=
```
(*****************************************)
```

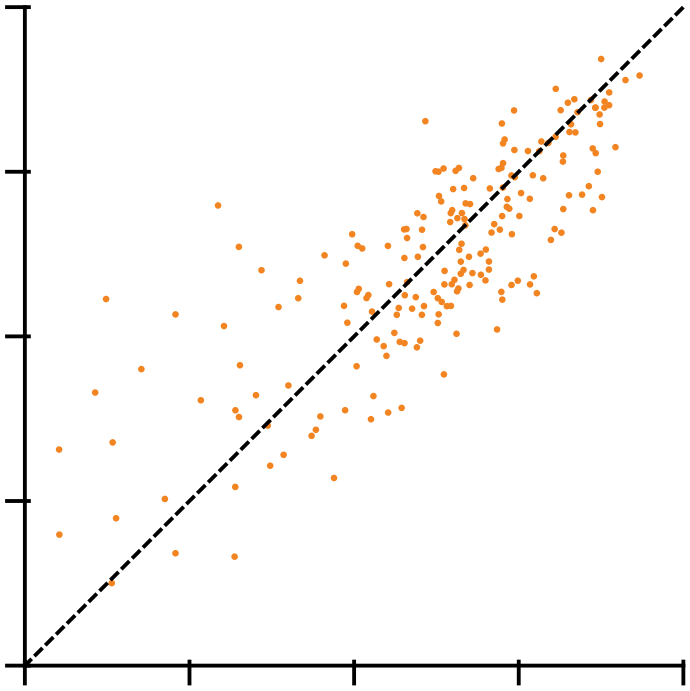
In[ ]:=
```
lmAxonsLocModPairsPlotPts =
  Partition[Riffle[{0.4, 0.6} , #], 2] & /@ pairedLocModIndexSummaryValsLMaxons;
```

In[ ]:=
```
allLocModsLMaxonsDark = pairedLocModIndexSummaryValsLMaxons[[All, 1]];
```

In[ ]:=
```
allLocModsLMaxonsLED = pairedLocModIndexSummaryValsLMaxons[[All, 2]];
```

In[ ]:=
```
Show[ListPlot[pairedLocModIndexSummaryValsLMaxons, PlotRange → {{-1, 1}, {-1, 1}},
  AspectRatio → 1, FrameTicksStyle -> Directive[FontOpacity -> 0, FontSize -> 0],
  PlotStyle → {lmColor, PointSize[0.01]}, FrameTicks →
   {{LinTicks[-1, 1, MajorTickLength → {0, .03}, MinorTicksLength → {0, 0}], None},
    {LinTicks[-1, 1, MajorTickLength → {0, .03}, MinorTicksLength → {0, 0}], None}},
  Axes → False, TicksStyle → Thick, FrameStyle → Thick,
  Frame → {{True, None}, {True, None}}],
 Plot[x, {x, -1, 1}, PlotStyle → {Black, Thick, Dashed}]]
```

Out[ ]=



In[ ]:=
```
(****Histograms of differences between LED and Dark sessions*****)
```

In[ ]:=
```
controlLocModDiffs = Table[(pairedLocModIndexSummaryValsControl[[n, 2]] -
     pairedLocModIndexSummaryValsControl[[n, 1]]),
   {n, 1, Length[pairedLocModIndexSummaryValsControl]}];
```

In[ ]:=
```
v1AxonsLocModDiffs = Table[(pairedLocModIndexSummaryValsV1axons[[n, 2]] -
     pairedLocModIndexSummaryValsV1axons[[n, 1]]),
   {n, 1, Length[pairedLocModIndexSummaryValsV1axons]}];
```

In[ ]:=
```
lpAxonsLocModDiffs = Table[(pairedLocModIndexSummaryValsLPaxons[[n, 2]] -
     pairedLocModIndexSummaryValsLPaxons[[n, 1]]),
   {n, 1, Length[pairedLocModIndexSummaryValsLPaxons]}];
```

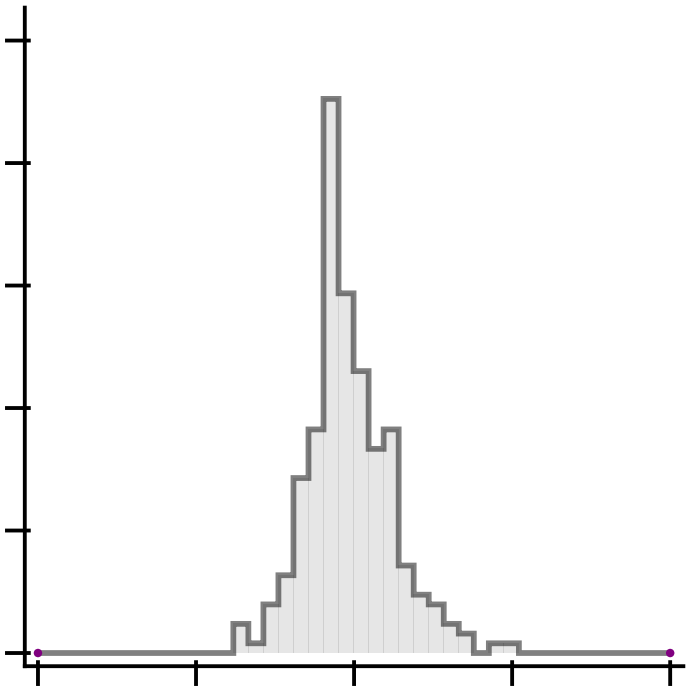
In[ ]:=
```
lmAxonsLocModDiffs = Table[(pairedLocModIndexSummaryValsLMaxons[[n, 2]] -
     pairedLocModIndexSummaryValsLMaxons[[n, 1]]),
   {n, 1, Length[pairedLocModIndexSummaryValsLMaxons]}];
```

In[ ]:=
```
(********)
```

```
bin = 2 * InterquartileRange[controlLocModDiffs] * (Length[controlLocModDiffs]^(-1/3));
```

```
In[•]:= minVal = -2;

In[•]:= maxVal = 2;

In[•]:= hfn = ($MachineEpsilon + #2) / Total[#2] &;

In[•]:= h = Histogram[{controlLocModDiffs}, {minVal, maxVal, bin},
          hfn, ChartStyle → (Directive[#, AbsoluteThickness[3]] & /@ {Black}),
          PerformanceGoal → "Speed", PlotRange → {{minVal, maxVal}, {0, 0.4}}];

In[•]:= h2 = Histogram[{controlLocModDiffs}, {minVal, maxVal, bin},
          hfn, ChartStyle → {{Black}, Directive[Opacity[0.1], EdgeForm[]]},
          PlotRange → {{minVal, maxVal}, {0, 0.4}}];

In[•]:= hline = h /. rec : {({{_Rectangle}} | {}) ..} :>
           Line[Flatten[rec, 2] /. _[{x_, y_}, {X_, Y_}, ___] :> Sequence[{x, Y}, {X, Y}]];

In[•]:= histLocModDiffsControl =
         Show[Show[hline, h2, ListPlot[{{-2, 0}, {2, 0}}, PlotStyle → Purple],
           PlotRange → {{minVal, maxVal}, {0, 0.25}}, FrameTicks →
            {{LinTicks[0, 0.25, MajorTickLength → {0, .03}, MinorTickLength → {0, 0}], None},
             {LinTicks[minVal, maxVal, MajorTickLength → {0, .03}, MinorTickLength → {0, 0}],
              None}}, Axes → False, TicksStyle → Thick,
           FrameStyle → Thick, Frame → {{True, None}, {True, None}}],
          FrameTicksStyle -> Directive[FontOpacity -> 0, FontSize -> 0], AspectRatio → 1]
```

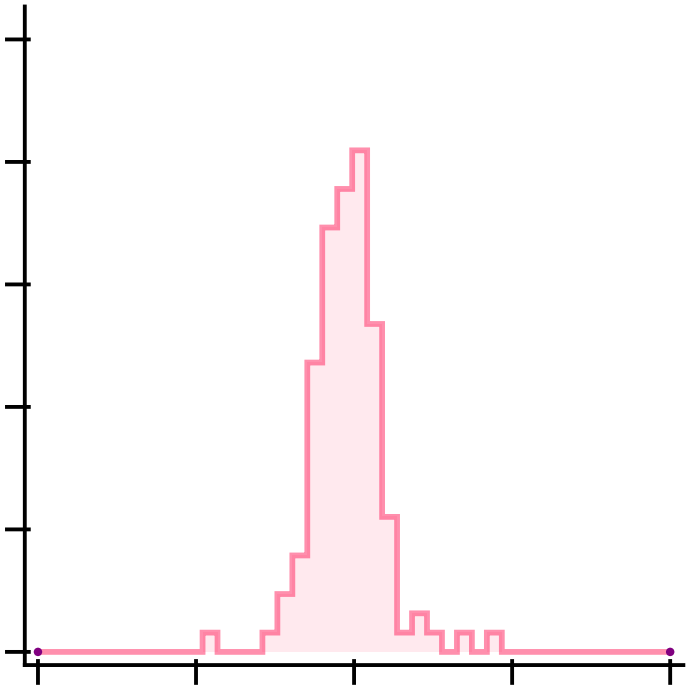
Out[•]=



```
In[•]:= (**)

In[•]:= bin = 2 * InterquartileRange[v1AxonsLocModDiffs] * (Length[v1AxonsLocModDiffs]^(-1/3))

In[•]:= hfn = ($MachineEpsilon + #2) / Total[#2] &;
```

```
In[•]:= h = Histogram[{v1AxonsLocModDiffs}, {minVal, maxVal, bin},
          hfn, ChartStyle → (Directive[#, AbsoluteThickness[3]] & /@ {v1Color}),
          PerformanceGoal → "Speed", PlotRange → {{minVal, maxVal}, {0, 0.4}}];

In[•]:= h2 = Histogram[{v1AxonsLocModDiffs}, {minVal, maxVal, bin},
          hfn, ChartStyle → {{v1Color}, Directive[Opacity[0.1], EdgeForm[]]},
          PlotRange → {{minVal, maxVal}, {0, 0.4}}];

In[•]:= hline = h /. rec : {({{_Rectangle}} | {}) ..} :>
           Line[Flatten[rec, 2] /. _[{x_, y_}, {X_, Y_}, ___] :> Sequence[{x, Y}, {X, Y}]];

In[•]:= histLocModDiffsV1axons =
         Show[Show[hline, h2, ListPlot[{{-2, 0}, {2, 0}}, PlotStyle → Purple],
           PlotRange → {{minVal, maxVal}, {0, 0.25}}, FrameTicks →
            {{LinTicks[0, 0.25, MajorTickLength → {0, .03}, MinorTickLength → {0, 0}], None},
             {LinTicks[minVal, maxVal, MajorTickLength → {0, .03}, MinorTickLength → {0, 0}],
              None}}, Axes → False, TicksStyle → Thick,
           FrameStyle → Thick, Frame → {{True, None}, {True, None}}],
          FrameTicksStyle -> Directive[FontOpacity -> 0, FontSize -> 0], AspectRatio → 1]
```

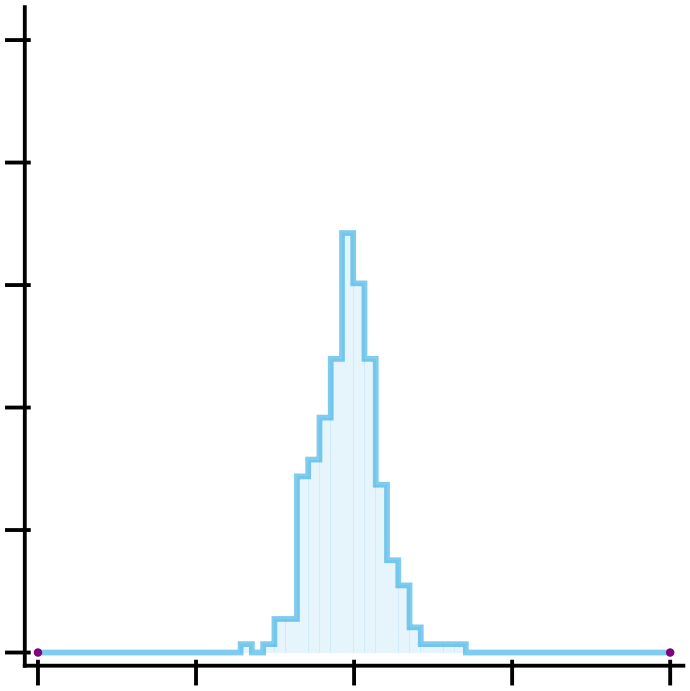
Out[•]=



```
In[•]:= (**)

        bin = 2 * InterquartileRange[lpAxonsLocModDiffs] * (Length[lpAxonsLocModDiffs] ^ (-1 / 3));

In[•]:= hfn = ($MachineEpsilon + #2) / Total[#2] &;

In[•]:= h = Histogram[{lpAxonsLocModDiffs}, {minVal, maxVal, bin},
          hfn, ChartStyle → (Directive[#, AbsoluteThickness[3]] & /@ {lpColor}),
          PerformanceGoal → "Speed", PlotRange → {{minVal, maxVal}, {0, 0.4}}];
```

```
In[•]:= h2 = Histogram[{lpAxonsLocModDiffs}, {minVal, maxVal, bin},
           hfn, ChartStyle → {{lpColor}, Directive[Opacity[0.1], EdgeForm[]]},
           PlotRange → {{minVal, maxVal}, {0, 0.4}}];

In[•]:= hline = h /. rec : {({{_Rectangle}} | {}) ..} :→
            Line[Flatten[rec, 2] /. _[{x_, y_}, {X_, Y_}, ___] :→ Sequence[{x, Y}, {X, Y}]];

In[•]:= histLocModDiffsLPaxons =
         Show[Show[hline, h2, ListPlot[{{-2, 0}, {2, 0}}, PlotStyle → Purple],
           PlotRange → {{minVal, maxVal}, {0, 0.25}}, FrameTicks →
            {{LinTicks[0, 0.25, MajorTickLength → {0, .03}, MinorTickLength → {0, 0}], None},
             {LinTicks[minVal, maxVal, MajorTickLength → {0, .03}, MinorTickLength → {0, 0}],
              None}}, Axes → False, TicksStyle → Thick,
           FrameStyle → Thick, Frame → {{True, None}, {True, None}}],
          FrameTicksStyle -> Directive[FontOpacity -> 0, FontSize -> 0], AspectRatio → 1]
```

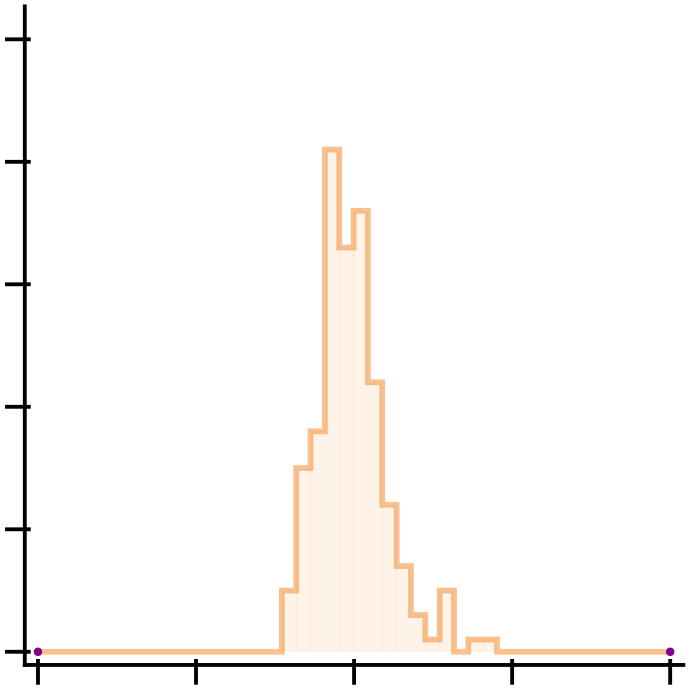
Out[•]=



```
In[•]:= (**)

        bin = 2 * InterquartileRange[lmAxonsLocModDiffs] * (Length[lmAxonsLocModDiffs] ^ (-1 / 3));

In[•]:= hfn = ($MachineEpsilon + #2) / Total[#2] &;

In[•]:= h = Histogram[{lmAxonsLocModDiffs}, {minVal, maxVal, bin},
           hfn, ChartStyle → (Directive[#, AbsoluteThickness[3]] & /@ {lmColor}),
           PerformanceGoal → "Speed", PlotRange → {{minVal, maxVal}, {0, 0.4}}];

In[•]:= h2 = Histogram[{lmAxonsLocModDiffs}, {minVal, maxVal, bin},
           hfn, ChartStyle → {{lmColor}, Directive[Opacity[0.1], EdgeForm[]]},
           PlotRange → {{minVal, maxVal}, {0, 0.4}}];

In[•]:= hline = h /. rec : {({{_Rectangle}} | {}) ..} :→
            Line[Flatten[rec, 2] /. _[{x_, y_}, {X_, Y_}, ___] :→ Sequence[{x, Y}, {X, Y}]];
```

In[ ]:=
```
histLocModDiffsLMaxons =
 Show[Show[hline, h2, ListPlot[{{-2, 0}, {2, 0}}, PlotStyle → Purple],
   PlotRange → {{minVal, maxVal}, {0, 0.25}}, FrameTicks →
    {{LinTicks[0, 0.25, MajorTickLength → {0, .03}, MinorTickLength → {0, 0}], None},
     {LinTicks[minVal, maxVal, MajorTickLength → {0, .03}, MinorTickLength → {0, 0}],
      None}}, Axes → False, TicksStyle → Thick,
   FrameStyle → Thick, Frame → {{True, None}, {True, None}}],
  FrameTicksStyle -> Directive[FontOpacity -> 0, FontSize -> 0], AspectRatio → 1]
```

Out[ ]=



```
(*********************************************)
(*******Generate plots in Figure S7E***************)
(*********************************************)
```

In[ ]:=
```
controlCharts = Show[BoxWhiskerChart[controlLocModDiffs,
    {{"Whiskers", Directive[Darker@controlColor, Thick]},
     {"Fences", Directive[Darker@controlColor, Thick]}, {"MedianMarker",
      Directive[Darker@controlColor, Thickness[0.009]]}}, PlotRange → {All, {-1, 1}},
   ChartStyle → Directive[controlColor, Opacity[0.3]], Frame → False],
  DistributionChart[controlLocModDiffs, PlotRange → {All, {-1, 1}}, ChartStyle →
    Directive[EdgeForm[Transparent], Opacity[0.2], controlColor], Frame → False],
  FrameTicks → {{LinTicks[-1, 1, MajorTickLength → {0, .03}, MinorTickLength → {0, 0}],
     None}, {None, None}}, Axes → False, TicksStyle → Thick,
  FrameStyle → Directive[Transparent, Thick], Frame → {{True, None}, {None, None}},
  FrameTicksStyle -> Directive[FontOpacity -> 0, FontSize -> 0]];
```

```
In[•]:= v1AxonCharts = Show[
          BoxWhiskerChart[v1AxonsLocModDiffs, {{"Whiskers", Directive[Darker@v1Color, Thick]},
            {"Fences", Directive[Darker@v1Color, Thick]}, {"MedianMarker",
             Directive[Darker@v1Color, Thickness[0.009]]}}, PlotRange → {All, {-1, 1}},
           ChartStyle → Directive[v1Color, Opacity[0.3]], Frame → False],
          DistributionChart[v1AxonsLocModDiffs, PlotRange → {All, {-1, 1}},
           ChartStyle → Directive[EdgeForm[Transparent], Opacity[0.2], v1Color], Frame → False],
          FrameTicks → {{LinTicks[-1, 1, MajorTickLength → {0, .03}, MinorTickLength → {0, 0}],
             None}, {None, None}}, Axes → False, TicksStyle → Thick,
          FrameStyle → Directive[Transparent, Thick], Frame → {{True, None}, {None, None}},
          FrameTicksStyle -> Directive[FontOpacity -> 0, FontSize -> 0]];

In[•]:= lpAxonCharts = Show[
          BoxWhiskerChart[lpAxonsLocModDiffs, {{"Whiskers", Directive[Darker@lpColor, Thick]},
            {"Fences", Directive[Darker@lpColor, Thick]}, {"MedianMarker",
             Directive[Darker@lpColor, Thickness[0.009]]}}, PlotRange → {All, {-1, 1}},
           ChartStyle → Directive[lpColor, Opacity[0.3]], Frame → False],
          DistributionChart[lpAxonsLocModDiffs, PlotRange → {All, {-1, 1}},
           ChartStyle → Directive[EdgeForm[Transparent], Opacity[0.2], lpColor], Frame → False],
          FrameTicks → {{LinTicks[-1, 1, MajorTickLength → {0, .03}, MinorTickLength → {0, 0}],
             None}, {None, None}}, Axes → False, TicksStyle → Thick,
          FrameStyle → Directive[Transparent, Thick], Frame → {{True, None}, {None, None}},
          FrameTicksStyle -> Directive[FontOpacity -> 0, FontSize -> 0]];

In[•]:= lmAxonCharts = Show[
          BoxWhiskerChart[lmAxonsLocModDiffs, {{"Whiskers", Directive[Darker@lmColor, Thick]},
            {"Fences", Directive[Darker@lmColor, Thick]}, {"MedianMarker",
             Directive[Darker@lmColor, Thickness[0.009]]}}, PlotRange → {All, {-1, 1}},
           ChartStyle → Directive[lmColor, Opacity[0.3]], Frame → False],
          DistributionChart[lmAxonsLocModDiffs, PlotRange → {All, {-1, 1}},
           ChartStyle → Directive[EdgeForm[Transparent], Opacity[0.2], lmColor], Frame → False],
          FrameTicks → {{LinTicks[-1, 1, MajorTickLength → {0, .03}, MinorTickLength → {0, 0}],
             None}, {None, None}}, Axes → False, TicksStyle → Thick,
          FrameStyle → Directive[Transparent, Thick], Frame → {{True, None}, {None, None}},
          FrameTicksStyle -> Directive[FontOpacity -> 0, FontSize -> 0]];

In[•]:= transp =
         Show[BoxWhiskerChart[controlLocModDiffs, {{"Whiskers", Directive[Transparent, Thick]},
            {"Fences", Directive[Transparent, Thick]},
            {"MedianMarker", Directive[Transparent, Thickness[0.009]]}},
           PlotRange → {All, {-1, 1}}, ChartStyle → Transparent, Frame → False],
          DistributionChart[controlLocModDiffs, PlotRange → {All, {-1, 1}}, ChartStyle →
            Directive[EdgeForm[Transparent], Opacity[0.2], Transparent], Frame → False],
          FrameTicks → {{LinTicks[-1, 1, MajorTickLength → {0, .03}, MinorTickLength → {0, 0}],
             None}, {None, None}}, Axes → False, TicksStyle → Thick,
          FrameStyle → Directive[Black, Thick], Frame → {{True, None}, {None, None}},
          FrameTicksStyle -> Directive[FontOpacity -> 0, FontSize -> 0]];
```

In[ ]:=
```
GraphicsRow[{controlCharts, v1AxonCharts, lmAxonCharts, lpAxonCharts, transp},
 Spacings → {{-280, -280, -280, -280, -480}}]
```

Out[ ]=