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Supplement of

On the model uncertainties in Bayesian source reconstruction using an
ensemble of weather predictions, the emission inverse modelling system
FREAR v1.0, and the Lagrangian transport and dispersion model Flex-
part v9.0.2

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itime=10, iobs=10

![Graph showing density vs. log(srs / median(srs)) with ensemble, Ctrue fit, and Gaussian fit.]
Ensemble

Gaussian fit

time=10, iobs=11
log(srs / median(srs))

- Ensemble
- Ctrue fit
- Gaussian fit

itime=10, iobs=12
itime=10, iobs=2

- Ensemble
- Ctrue fit
- Gaussian fit
itime=10, iobs=3

- log(srs / median(srs))
- density

- Ensemble
- Ctrue fit
- Gaussian fit
itime=10, iobs=4

- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs))
itime=10, iobs=5

- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs))

density
itime=10, iobs=6

- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs))
itime=10, iobs=7

- Plot showing the density of log(srs / median(srs))
  - Black line: Ensemble
  - Light blue line: Ctrue fit
  - Orange dotted line: Gaussian fit
itime=10, iobs=8

![Graph showing density vs log(srs / median(srs))](image)

- Ensemble
- Ctrue fit
- Gaussian fit
itime=10, iobs=9
itime=11, iobs=11

- **Log of srs / median(srs)**
  - **Density**: x-axis
  - **Legend**:
    - Ensemble (black line)
    - Ctrue fit (light blue line, dashed)
    - Gaussian fit (orange dots)

The graph illustrates a distribution of log(srs / median(srs)) with density on the y-axis and log(srs / median(srs)) on the x-axis. The x-axis shows values from -15 to 10.
$\text{itime}=11, \ iobs=1$

- **Ensemble**
- **Ctrue fit**
- **Gaussian fit**

The graph shows the density of the log(srs / median(srs)) distribution. The y-axis represents the density, and the x-axis represents the log(srs / median(srs)). The graph includes three curves: black for Ensemble, blue for Ctrue fit, and orange dots for Gaussian fit.
ensemble fit

Ctrue fit

Gaussian fit

itime=11, iobs=2

log(srs / median(srs))

density
**itime=11, iobs=3**

- **Ensemble**
- **Ctrue fit**
- **Gaussian fit**

The graph plots the density of log(srs / median(srs)) against various values.
$\text{itime}=11, \ iobs=4$

- Ensemble
- Ctrue fit
- Gaussian fit
The figure shows a probability density plot with the following legend:

- **Ensemble** (black solid line)
- **Ctrue fit** (cyan dashed line)
- **Gaussian fit** (orange dotted line)

The y-axis represents the density, and the x-axis represents the log of the ratio of the sample to the median of the sample. The title of the plot is "itime=11, iobs=6".
itime=11, iobs=7

- Ensemble
- Ctrue fit
- Gaussian fit

The graph shows the density of log(srs / median(srs)) with three fitted curves: Ensemble, Ctrue fit, and Gaussian fit. The x-axis represents log(srs / median(srs)) ranging from -15 to 10, and the y-axis represents the density ranging from 0.0 to 0.3.
Ensemble
Ctrue fit
Gaussian fit

$log(srs / \text{median}(srs))$

density

itime=11, iobs=9
itime=12, iobs=10

- Ensemble
- Ctrue fit
- Gaussian fit
itime=12, iobs=11

log(srs / median(srs))

density

- Ensemble
- Ctrue fit
- Gaussian fit
itime=12, iobs=12

- Ensemble
- $C_{true}$ fit
- Gaussian fit

log(srs / median(srs))

density

0.30
0.20
0.10
0.00
-15 -10 -5 0 5 10
itime=12, iobs=1

![Graph showing density against log(srs / median(srs)). The graph compares Ensemble, Ctrue fit, and Gaussian fit.](image-url)
itime=12, iobs=3

- Plot showing the density of log(srs / median(srs))
- Lines labeled Ensemble, Ctrue fit, and Gaussian fit
- X-axis: log(srs / median(srs))
- Y-axis: density
- Graph illustrates the distribution of log-transformed ratios for ensemble and Gaussian fits.
itime=12, iobs=4

-0.00 -0.05 -0.10 -0.15 -0.20 -0.25 -0.30
0.00 0.05 0.10 0.15 0.20 0.25 0.30

-15 -10 -5 0 5 10

log(srs / median(srs))

density

Ensemble
Ctrue fit
Gaussian fit
Ensemble
Ctrue fit
Gaussian fit

itime=12, iobs=6

log(srs / median(srs))

density

0.00
0.10
0.20
0.30

-15 -10 -5 0 5 10 15

0.00
0.10
0.20
0.30

Ensemble
Ctrue fit
Gaussian fit

itime=12, iobs=6

log(srs / median(srs))

density
$\text{itime}=12, \ iobs=7$
Ensemble
Ctrue fit
Gaussian fit

itime=12, iobs=8
itime=13, iobs=10
itime=13, iobs=11

- Ensemble
- Ctrue fit
- Gaussian fit
itime=13, iobs=12

- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs))

density

0.30

0.20

0.10

0.00

-15

-10

-5

0

5

10
density

$log(srs / median(srs))$

itime=13, iobs=1

- Ensemble
- Ctrue fit
- Gaussian fit
itime=13, iobs=2

Density

log(srs / median(srs))
itime=13, iobs=4

- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs)) vs. density
itime=13, iobs=5
itime=13, iobs=6

- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs))

density
It was observed that at time $i_{time} = 13$, observation $i_{obs} = 7$.
The graph shows the distribution of log(srs / median(srs)) for a specific time step, itime=13, and observation step, iobs=8. The distribution is compared with an ensemble model, a Ctrue fit, and a Gaussian fit. The y-axis represents the density, and the x-axis represents the log(srs / median(srs)) values.
itime=13, iobs=9

- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs))

density
itime=14, iobs=10
itime=14, iobs=12

- Density of log(srs / median(srs))

- Black line: Ensemble
- Cyan line: Ctrue fit
- Orange dots: Gaussian fit
itime=14, iobs=1

- Ensemble
- Ctrue fit
- Gaussian fit
ite=14, iobs=3
Ensemble
Ctrue fit
Gaussian fit

itime=14, iobs=5

log(srs / median(srs))

density
itime=14, iobs=8

-plot showing the log(srs / median(srs)) on the x-axis and density on the y-axis.
-Three lines are plotted: Ensemble (black), Ctrue fit (light blue), and Gaussian fit (orange dots).

Legend:
- Ensemble
- Ctrue fit
- Gaussian fit
etime=14, iobs=9

- Ensemble
- Ctrue fit
- Gaussian fit
itime=15, iobs=10

- Ensemble
- Ctrue fit
- Gaussian fit
ETIME=15, IObs=11

log(srs / median(srs))

density

Ensemble
Ctrue fit
Gaussian fit
itime=15, iobs=12
itime=15, iobs=1

- Density distribution for log(srs / median(srs))
- Comparison of Ensemble, Ctrue fit, and Gaussian fit
itime=15, iobs=5

The graph shows the density of log(srs / median(srs)) with three fitted curves:
- **Ensemble**
- **Ctrue fit**
- **Gaussian fit**

The y-axis represents the density, and the x-axis represents log(srs / median(srs)).
itime=15, iobs=6
$\text{itime}=15, \ iobs=7$

![Graph showing density distribution with labels Ensemble, Ctrue fit, Gaussian fit.](Image)
Ensemble
Ctrue fit
Gaussian fit

itime=15, iobs=8
Ensemble
Ctrue fit
Gaussian fit

itime=15, iobs=9
Ensemble

Ctrue fit

Gaussian fit

$log(srs / median(srs))$

density

itime=16, iobs=10
itime=16, iobs=11

- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs))

density

-10 -5 0 5 10

0.0 0.1 0.2 0.3 0.4 0.5
The graph shows the distribution of log(r/s / median(r/s)) with two fits: an ensemble fit and a Gaussian fit. The parameters are given as itime=16, iobs=12.
itime=16, i.obs=1
itime=16, iobs=2

- The plot shows the density of log(srs / median(srs)).
- The x-axis represents log(srs / median(srs)).
- The y-axis represents the density.
- The graph compares the Ensemble, Ctrue fit, and Gaussian fit.

- The Ensemble line is solid black.
- The Ctrue fit line is light blue.
- The Gaussian fit line is dark orange.

- The data points are shown for each fit type.
itime=16, iobs=3

- Ensemble
- $C_{true}$ fit
- Gaussian fit
otime=16, iobs=4

- Ensemble
- Ctrue fit
- Gaussian fit
Ensemble
Ctrue fit
Gaussian fit

itime=16, iobs=5
Ensemble
Ctrue fit
Gaussian fit

itime=16, iobs=6
itime=16, iobs=7

- ensemble
- true fit
- Gaussian fit
itime=16, iobs=8

log(srs / median(srs))

density

Ensemble
Ctrue fit
Gaussian fit
ETIME=16, iobs=9

- Plot showing the density of log(srs / median(srs))
- Graph includes lines for ensemble, Ctrue fit, and Gaussian fit
- Y-axis label: Density
- X-axis label: log(srs / median(srs))
ETIME=17, IOBS=10

- Ensemble
- Ctrue fit
- Gaussian fit
itime=17, iobs=11

log(srs / median(srs))

density

Ensemble
CTrue fit
Gaussian fit
Ensemble Ctrue fit Gaussian fit

itime=17, iobs=1

density log(srs / median(srs))
Ensemble
Ctrue fit
Gaussian fit

itime=17, iobs=2
itime=17, iobs=3

- Density plot of log(srs / median(srs))
- Black line: Ensemble
- Blue dashed line: Ctrue fit
- Orange dots: Gaussian fit
itime=17, iobs=4
itime=17, iobs=6

log(srs / median(srs))

density

- Ensemble
- Ctrue fit
- Gaussian fit
itime=17, iobs=8

- Graph showing the density of log(srs / median(srs)) with three curves:
  - Black curve: Ensemble
  - Light blue dashed curve: Ctrue fit
  - Orange dotted curve: Gaussian fit
Ensemble
Ctrue fit
Gaussian fit

itime=17, iobs=9
Ensemble

Ctrue fit

Gaussian fit

itime=18, iobs=10
Ensemble
Ctrue fit
Gaussian fit

itime=18, iobs=1
$\text{itime}=18, \text{iobs}=2$

- Ensemble
- $C_{\text{true}}$ fit
- Gaussian fit

Graph shows density against $\log(srs / \text{median}(srs))$.
Ensemble

Ctrue fit

Gaussian fit

itime=18, iobs=3
Ensemble

Ctrue fit

Gaussian fit

itime=18, iobs=4
Ensemble Ctrue fit Gaussian fit

itime=18, iobs=6
itime=18, iobs=7

- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs))

density
itime=18, iobs=8

The graph shows the distribution of log(srs / median(srs)) with three different fits:

- Ensemble
- Ctrue fit
- Gaussian fit

The density is plotted on the y-axis, and the log(srs / median(srs)) values range from -15 to 10 on the x-axis.
density

log(srs / median(srs))

 Ensemble
 Ctrue fit
 Gaussian fit

itime=18, iobs=9
itime=19, iobs=10

log(srs / median(srs))

density

Ensemble
Ctrue fit
Gaussian fit
 Ensemble

 Ctrue fit

 Gaussian fit

 log(srs / median(srs))

 itime=19, iobs=12
Ensemble
Ctrue fit
Gaussian fit

itime=19, iobs=1
it\text{ime}=19, iobs=3
Ensemble Ctrue fit Gaussian fit

itime=19, iobs=4
itime=19, iobs=5

- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs))

density
itime=19, iobs=6

log(srs / median(srs))

density

- Ensemble
- Ctrue fit
- Gaussian fit
itime=19, iobs=7

- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs))

density
itime=19, iobs=8

- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs))

density
itime=1, iobs=11

- Ensembl
- $C_{true}$ fit
- Gaussian fit

log(srs / median(srs))

density
$\text{itime}=1$, $\text{iobs}=3$
itime=1, iobs=4

density

log(srs / median(srs))

-15 -10 -5 0 5 10

-0.00 -0.10 -0.20 -0.30

0.00 0.10 0.20 0.30

Ensemble
Ctrue fit
Gaussian fit
Ensemble
Ctrue fit
Gaussian fit

itime=1, iobs=5
\textbf{itime=1, iobs=6}

- Ensemble
- C_{true} fit
- Gaussian fit

\textit{density vs. log(srs / median(srs))}
itime=1, iobs=7

log(srs / median(srs))

density

- Ensemble
- Ctrue fit
- Gaussian fit
itime=20, iobs=10

log(srs / median(srs))

density

- Ensemble
- Ctrue fit
- Gaussian fit
itime=20, iobs=11

log(srs / median(srs))

density

Ensemble
Ctrue fit
Gaussian fit
itime=20, iobs=12

The diagram shows the density of log(srs / median(srs)) with three different fits:
- **Ensemble**
- **Ctrue fit**
- **Gaussian fit**
itime=20, iobs=2

- Envelope
- Ctrue fit
- Gaussian fit

log(srs / median(srs))

density
itime=20, iobs=3

Ensemble
Ctrue fit
Gaussian fit
itime=20, iobs=4

- Ensemble
- Ctrue fit
- Gaussian fit
\texttt{itime=20, iobs=6}
itime=20, iobs=7

- Graph showing the density of log(srs / median(srs)) with the following lines:
  - Black line: Ensemble
  - Blue dashed line: Ctrue fit
  - Orange dotted line: Gaussian fit

- Y-axis: Density
- X-axis: log(srs / median(srs))

- The graph indicates a peak around 0, with the Ensemble line closely following the Ctrue fit line, and both lines being distinct from the Gaussian fit line.

- The y-axis ranges from 0.0 to 0.4, and the x-axis ranges from -15 to 10.
itime=20, iobs=9

- Ensemble
- Ctrue fit
- Gaussian fit
itime=21, iobs=10

<table>
<thead>
<tr>
<th></th>
<th>Ensemble</th>
<th>Ctrue fit</th>
<th>Gaussian fit</th>
</tr>
</thead>
</table>

The image shows a plot with the x-axis labeled as `log(srs / median(srs))` and the y-axis labeled as `density`. The plot compares different fits to the data, including an ensemble fit, a Ctrue fit, and a Gaussian fit.
ite\(\text{m}=21, \ i_{\text{obs}}=1\)

- Ensemble
- C\text{true} fit
- Gaussian fit
\textbf{itime=21, iobs=3}

The plot shows the density distribution of \( \log(\text{srs} / \text{median(srs)}) \) with three different fits:

- **Ensemble**: The solid black line represents the ensemble fit.
- **Ctrue**: The blue dashed line represents the Ctrue fit.
- **Gaussian fit**: The orange dotted line represents the Gaussian fit.

The x-axis represents the log-scaled ratio of the sample (srs) to the median of the sample, while the y-axis represents the density.
itime=21, iobs=4

Ensemble

Ctrue fit

Gaussian fit

density

log(srs / median(srs))
$$\text{log}(\text{srs} / \text{median(srs)})$$
itime=21, iobs=8

![Graph showing log(srs / median(srs)) with Ensemble, Ctrue fit, and Gaussian fit curves.](image-url)
itime=21, iobs=9

- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs))

density
itime=22, iobs=10

- Graph showing density with logarithmic scale on the x-axis: log(srs / median(srs)).
- Three line styles:
  - Black line: Ensemble
  - Light blue line: Ctrue fit
  - Orange dotted line: Gaussian fit
It is shown the density distribution of log(srs / median(srs)) for a given time step, itime=22, and observation, iobs=11. The graph compares different fitting models: the ensemble model (black line), a true fit (light blue line), and a Gaussian fit (orange dots).
itime=22, iobs=12

- Ensemble
- Ctrue fit
- Gaussian fit
itime=22, iobs=3

![Graph showing density distribution with log(srs / median(srs)) on the x-axis and density on the y-axis. The graph compares Ensemble, Ctrue fit, and Gaussian fit.](image-url)
itime=22, iobs=4

log(srs / median(srs))

density

- Ensemble
- Ctrue fit
- Gaussian fit
$\text{itime}=22, \ iobs=5$
itime=22, iobs=6

- Plot showing the density of log(srs / median(srs))
- Graph with x-axis labeled as log(srs / median(srs)) and y-axis labeled as density
- Legend indicating lines for Ensemble, Ctrue fit, and Gaussian fit
itime=22, iobs=7

log(srs / median(srs))

density

Ensemble
Ctrue fit
Gaussian fit
itime=22, iobs=8

- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs))
It is not possible to interpret the graph without additional context. The graph shows a log density plot with labels for the axes: log(srs / median(srs)) on the x-axis and density on the y-axis. The legend indicates three lines: Ensemble, Ctrue fit, and Gaussian fit. The text in the image mentions "itime=23, iobs=10."
itime=23, iobs=11

- Ensemble
- Ctrue fit
- Gaussian fit
itime=23, iobs=1

Graph showing density distribution with three lines:
- Ensemble
- Ctrue fit
- Gaussian fit

The x-axis represents log(srs / median(srs)) and the y-axis represents density.
itime=23, iobs=2

- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs))

density
itime=23, iobs=3

- Ensemble
- Ctrue fit
- Gaussian fit
itime=23, iobs=4

- Ensemble
- Ctrue fit
- Gaussian fit
itime=23, iobs=5
itime=23, iobs=6

- Ensemble
- Ctrue fit
- Gaussian fit
$\text{itime}=23, \text{iobs}=7$

- Ensemble
- $C_{\text{true fit}}$
- $\text{Gaussian fit}$
itime=23, iobs=8

- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs))
density
itime=23, iobs=9
itime=24, iobs=10

- Plot showing the log(srs / median(srs)) distribution.
- Three lines labeled:
  - Ensemble
  - Ctrue fit
  - Gaussian fit
- The black line represents the Ensemble, the blue dashed line represents the Ctrue fit, and the orange dotted line represents the Gaussian fit.
itime=24, iobs=11

log(srs / median(srs))

density

- Ensemble
- Ctrue fit
- Gaussian fit
Ensemble
Ctrue fit
Gaussian fit

itime=24, iobs=12
itime=24, iobs=2

log(srs / median(srs))

-15 -10 -5 0 5 10

density

-0.1 -0.05 0.0 0.05 0.1 0.15 0.2 0.25 0.3

Ensemble
Ctrue fit
Gaussian fit
itime=24, iobs=3

- Ensemble
- Ctrue fit
- Gaussian fit
 Ensemble

 Ctrue fit

 Gaussian fit

 density

 log(srs / median(srs))

 itime=24, iobs=4
itime=24, iobs=5

- Ensemble
- Ctrue fit
- Gaussian fit
itime=24, iobs=8

- Ensemble
- Ctrue fit
- Gaussian fit
itime=24, iobs=9

[Plot of log(srs / median(srs)) vs. density with lines for Ensemble, Ctrue fit, and Gaussian fit]
itime=2, iobs=10

- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs))

density

-10 -5 0 5 10

0.3
0.2
0.1
0.0
itime=2, iobs=11
itime=2, iobs=12

- Ensemble
- Ctrue fit
- Gaussian fit
itime=2, iobs=1

- Ensemble
- Ctrue fit
- Gaussian fit
itime=2, iobs=2

- Plot showing the density of log(srs / median(srs))
- Lines representing Ensemble, Ctrue fit, and Gaussian fit
itime=2, iobs=3

- Ensemble
- Ctrue fit
- Gaussian fit
The diagram shows the density distribution of log(srs / median(srs)) with

- **Ensemble**
- **Ctrue fit**
- **Gaussian fit**

The time index is 2, and the observation index is 4.
$\text{itime}=2$, $\text{iobs}=5$
Ensemble
Ctrue fit
Gaussian fit

itime=2, iobs=6

log(srs / median(srs))

density

0.00 0.05 0.10 0.15 0.20 0.25

-15 -10 -5 0 5 10 15

0.00 0.05 0.10 0.15 0.20 0.25

-15 -10 -5 0 5 10 15
itime=2, iobs=7
itime=3, iobs=10

log(srs / median(srs))

density

- Ensemble
- Ctrue fit
- Gaussian fit
itime=3, iobs=11

```
log(srs / median(srs))
```

- **Ensemble**
- **Ctrue fit**
- **Gaussian fit**
\textbf{itime=3, iobs=12}

The graph shows the density distribution of log(srs / median(srs)) with three different fits:

- **Ensemble** line, solid black.
- **Ctrue fit** line, dashed light blue.
- **Gaussian fit** line, dotted orange.

The y-axis represents the density, and the x-axis represents the log(srs / median(srs)) values.
itime=3, iobs=1

- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs))

density
$\text{itime}=3, \text{iobs}=3$
itime=3, iobs=4

- Density

- Ensemble

- Ctrue fit

- Gaussian fit
$\text{itime}=3, \ iobs=6$

- **Ensemble**
- **Ctrue fit**
- **Gaussian fit**

![Graph](image-url)
itime=3, iobs=9
itime=4, iobs=10

log(srs / median(srs))

density

Ensemble
Ctrue fit
Gaussian fit
itime=4, iobs=11

- The graph shows the density distribution of log(srs / median(srs)).
- There are three curves:
  - Black line: Ensemble
  - Light blue dashed line: Ctrue fit
  - Orange dotted line: Gaussian fit

- The x-axis represents log(srs / median(srs)) with values ranging from -15 to 10.
- The y-axis represents density, with values ranging from 0.0 to 0.4.
itime=4, iobs=12

- Ensemble
- Ctrue fit
- Gaussian fit
itime=4, iobs=1

**Graph:**
- **Y-axis:** density
- **X-axis:** log(srs / median(srs))
- **Legend:**
  - Ensemble (solid black line)
  - Ctrue fit (dashed blue line)
  - Gaussian fit (dotted orange line)
itime=4, iobs=3

density

log(srs / median(srs))

Ensemble
Ctrue fit
Gaussian fit
$\text{itime}=4, \text{iobs}=5$

- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs)) vs. density
itime=4, iobs=6
itime=4, iobs=7
itime=4, iobs=8

- Ensemble
- Ctrue fit
- Gaussian fit
itime=5, iobs=10

- Ensemble
- Ctrue fit
- Gaussian fit
$\text{itime}=5, \text{iobs}=11$
itime=5, iobs=12

- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs))

density

0.30
0.20
0.10
0.00
-15 -10 -5 0 5 10 15
itime=5, iobs=1

- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs))
itime=5, iobs=3

- Ensemble
- Ctrue fit
- Gaussian fit
itime=5, iobs=4

- log(srs / median(srs))
- density

- Ensemble
- Ctrue fit
- Gaussian fit
itime=5, iobs=5

- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs))

density
itim=5, iobs=6

Ensemble

Gaussian fit

density

log(srs / median(srs))
$\text{itime}=5, \text{iobs}=7$

Graph showing the density of log(srs / median(srs)) with fit lines and markers.
itime=5, iobs=8

- Ensemble
- Ctrue fit
- Gaussian fit
Log-normal distribution for $i_{time}=6, i_{obs}=10$.
itage=6, iobs=11

-15
-10
-5
0
5
10

0.0
0.1
0.2
0.3
0.4

density

log(srs / median(srs))

-15
-10
-5
0
5
10

Ensemble
Ctrue fit
Gaussian fit
Ensemble
Ctrue fit
Gaussian fit

itime=6, iobs=1

log(srs / median(srs))

density

0.30
0.20
0.10
0.00
-15 -10 -5 0 5 10
$\text{itime}=6, \text{iobs}=2$

- **Ensemble**
- **Ctrue fit**
- **Gaussian fit**

The graph shows the density of the log(srs / median(srs)) distribution with three different fits: Ensemble, Ctrue fit, and Gaussian fit.
Ensemble
Ctrue fit
Gaussian fit

ième=6, iobs=3
$\text{itime}=6, \text{iobs}=4$

- Ensemble
- Ctrue fit
- Gaussian fit
$\text{itime}=6, \ iobs=5$

- **Ensemble**
- **Ctrue fit**
- **Gaussian fit**

The plot shows the density of $\log(srs / \text{median(srs)})$ with three different fits: Ensemble, $C_{true}$ fit, and Gaussian fit. The x-axis represents the log ratio, while the y-axis shows the density.
Ensemble

Ctrue fit

Gaussian fit

itime=6, iobs=6

log(srs / median(srs))

density
itime=6, iobs=7

- Plot showing the distribution of log(srs / median(srs))
- Three lines are plotted:
  - Black line: Ensemble
  - Light blue line: Ctrue fit
  - Orange dotted line: Gaussian fit

Density is on the y-axis, ranging from 0.00 to 0.30.

Logarithmic scale is used for the x-axis, ranging from -15 to 10.
itime=6, iobs=8
itime=6, iobs=9

log(srs / median(srs))

density

- Ensemble
- Ctrue fit
- Gaussian fit
itime=7, iobs=10

![Graph showing density over log(srs / median(srs)). The graph includes three lines: Ensemble, Ctrue fit, and Gaussian fit.](image)
itime=7, iobs=11
itable=7, iobs=1

```
log(srs / median(srs))
```

density

- Ensemble
- Ctrue fit
- Gaussian fit
$\text{itime}=7, \text{iobs}=2$
itime=7, iobs=3

- Graph showing density distribution with labels:
  - Ensemble
  - Ctrue fit
  - Gaussian fit
itime=7, iobs=4
$\text{itime}=7$, $\text{iobs}=5$

- Ensemble
- Ctrue fit
- Gaussian fit
itime=7, iobs=7

- Ensemble
- Ctrue fit
- Gaussian fit
itime=7, iobs=9

- Graph shows the density of log(srs / median(srs))
- Three curves are presented:
  - Black line: Ensemble
  - Light blue line: Ctrue fit
  - Orange dotted line: Gaussian fit

- The x-axis represents log(srs / median(srs)) values ranging from -15 to 10.
- The y-axis represents density values ranging from 0.00 to 0.30.
itime=8, iobs=10

- Ensemble
- Ctrue fit
- Gaussian fit
itime=8, iobs=11

- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs))
`itime=8, iobs=1`

![Graph with three lines labeled: Ensemble, Ctrue fit, Gaussian fit. The x-axis represents `log(srs / median(srs))` and the y-axis represents density.]
itime=8, iobs=2

![Graph showing log(srs / median(srs)) with density on the y-axis and log(srs / median(srs)) on the x-axis. The graph includes a black line labeled 'Ensemble', a light blue dashed line labeled 'Ctrue fit', and an orange dotted line labeled 'Gaussian fit'.]
itime=8, iobs=4

- Ensemble
- Ctrue fit
- Gaussian fit
$\text{itime}=8, \ iobs=5$

![Graph showing log(srs / median(srs)) for different fits.](image)

- **Ensemble**
- **Ctrue fit**
- **Gaussian fit**
$\text{itime}=8$, $\text{iobs}=6$
itime=8, iobs=9

- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs))

density
$\text{itime}=9, \text{iobs}=11$
itime=9, iobs=12

- Ensemble
- Ctrue fit
- Gaussian fit
itime=9, iobs=1
density

time=9, iobs=4

log(srs / median(srs))
itime=9, iobs=5

- Ensemble
- Ctrue fit
- Gaussian fit
itime=9, iobs=7

- Density
- Ensemble
- Ctrue fit
- Gaussian fit

log(srs / median(srs))
itime=9, iobs=8

- Graph showing the density of log(srs / median(srs)) for different fits:
  - Black line: Ensemble
  - Light blue dashed line: Ctrue fit
  - Orange dotted line: Gaussian fit

Axes:
- Y-axis: density
- X-axis: log(srs / median(srs))

Values range from -15 to 10 on the X-axis and from 0.00 to 0.30 on the Y-axis.