

tf.contrib.bayesflow.csiszar_divergence.log1p_abs

```
log1p_abs(
    logu,
    name=None
)
```

Defined in [tensorflow/contrib/bayesflow/python/ops/csiszar_divergence_impl.py](#).

The log1p-abs Csiszar-function in log-space.

A Csiszar-function is a member of,

$$F = \{ f: \mathbb{R}_+ \rightarrow \mathbb{R} : f \text{ convex} \}.$$


The Log1p-Abs Csiszar-function is:

$$f(u) = u^{**(\text{sign}(u-1))} - 1$$

This function is so-named because it was invented from the following recipe. Choose a convex function g such that $g(0)=0$ and solve for f :

$$\begin{aligned} \log(1 + f(u)) &= g(\log(u)). \\ \Leftrightarrow \\ f(u) &= \exp(g(\log(u))) - 1 \end{aligned}$$

That is, the graph is identically g when y-axis is **log1p**-domain and x-axis is **log**-domain.

 **Warning:** this function makes non-log-space calculations and may therefore be numerically unstable for $|\log u| \gg 0$.

Args:

- `logu`: **float**-like **Tensor** representing **log(u)** from above.
- `name`: Python **str** name prefixed to Ops created by this function.

Returns:

- `log1p_abs_of_u`: **float**-like **Tensor** of the Csiszar-function evaluated at $u = \exp(\log u)$.

Except as otherwise noted, the content of this page is licensed under the [Creative Commons Attribution 3.0 License](#), and code samples are licensed under the [Apache 2.0 License](#). For details, see our [Site Policies](#). Java is a registered trademark of Oracle and/or its affiliates.

Last updated November 2, 2017.

Stay Connected

[Blog](#)

[GitHub](#)

[Twitter](#)

Support

[Issue Tracker](#)

[Release Notes](#)

[Stack Overflow](#)

English

[Terms](#) | [Privacy](#)