

tf.contrib.bayesflow.csiszar_divergence.modified_gan

```
modified_gan(
    logu,
    self_normalized=False,
    name=None
)
```

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

The Modified-GAN Csiszar-function in log-space.

A Csiszar-function is a member of,


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

When `self_normalized = True` the modified-GAN (Generative/Adversarial Network) Csiszar-function is:

$$f(u) = \log(1 + u) - \log(u) + 0.5 (u - 1)$$

When `self_normalized = False` the `0.5 (u - 1)` is omitted.

The unmodified GAN Csiszar-function is identical to Jensen-Shannon (with `self_normalized = False`).

 **Warning:** this function makes non-log-space calculations and may therefore be numerically unstable for `|logu| >> 0`.

Args:

- `logu`: `float`-like `Tensor` representing `log(u)` from above.
- `self_normalized`: Python `bool` indicating whether `f'(u=1)=0`. When `f'(u=1)=0` the implied Csiszar f-Divergence remains non-negative even when `p, q` are unnormalized measures.
- `name`: Python `str` name prefixed to Ops created by this function.

Returns:

- `chi_square_of_u`: `float`-like `Tensor` of the Csiszar-function evaluated at `u = exp(logu)`.

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](#)