

tf.contrib.bayesflow.csiszar_divergence.t_power

```
t_power(
    logu,
    t,
    self_normalized=False,
    name=None
)
```

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

The T-Power 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 T-Power Csiszar-function is:

$$f(u) = s \left[u^{t+1} - 1 - t(u - 1) \right]$$

$$s = \begin{cases} -1 & 0 < t < 1 \\ +1 & \text{otherwise} \end{cases}$$

When `self_normalized = False` the $-t(u - 1)$ term is omitted.

This is similar to the `amari_alpha` Csiszar-function, with the associated divergence being the same up to factors depending only on `t`.

Args:

- `logu`: `float`-like `Tensor` representing $\log(u)$ from above.
- `t`: `Tensor` of same `dtype` as `logu` and broadcastable shape.
- `self_normalized`: Python `bool` indicating whether $f'(u=1)=0$.
- `name`: Python `str` name prefixed to Ops created by this function.

Returns:

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

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