# MTRANDOM

## Random Numbers for Unity3d

In Unity3d there is already a Random number generator based on the platform-specific random generator. Here we present an alternative Random library for Unity3d designed to generate uniform Pseudo-Random deviates. The library use a fast PRNG (Mersenne-Twister) to generate: Floating Number in range [0-1] and in range [n-m], Vector2 and Vector3 and Color data types. The uniform deviates can be transformed with the distributions: Standard Normal Distribution and Power-Law. In addition is possible to generate floating random deviates coming from other distributions: Poisson, Exponential and Gamma.

```
using UnityEngine;
using UMT;

public class MTRandomExample : MonoBehaviour
{
    private MTRandom mrand;

    // seed can be also an int
    public string seed = "Test Seed"

    void Start ()
    {
        mrand = new MTRandom(seed);
    }

    void Update()
    {
        float x = mrand.value()
        float y = mrand.valueNorm(1.0f);
        float z = mrand.valuePower(1.0f);
    }
}
```

See pdf documentation for more info on main class **MTRandom**