

最近开始使用Sublime Text发现越用越顺手。以前一直在寻找一个可以支持离线实时预览的Markdown编辑器，而且还能比较完美的支持公式，结果都没有很满意的。后来就开始使用StackEdit，唯一的缺点就是必须用在线的MathJax，感觉总是有点不舒服。当然在浏览器里使用也有不太好的用户体验。前两天发现Sublime Text里有一个很强大的插件叫OmniMarkupPreviewer，可以支持多种格式文件的实时预览。以下是文档的摘要：

OmniMarkupPreviewer has builtin support following markups:

- [Markdown](#)
- [reStructuredText](#)
- [WikiCreole](#)
- [Textile](#)
- [Pod](#) (Requires Perl  $\geq$  5.10 and can be found in `PATH`, if the perl version  $<$  5.10, `Pod::Simple` should be installed from CPAN.)
- [RDoc](#) (Requires ruby in your `PATH`)
- [Org Mode](#) (Requires ruby, and gem `org-ruby` should be installed)
- [MediaWiki](#) (Requires ruby, as well as gem `wikicloth`)
- [AsciiDoc](#) (Requires ruby, as well as gem `asciidoc`)
- Literate Haskell

可以看到除了不支持著名的Latex，平常有实时预览需求的格式基本都能支持，确实很强大。

## 功能测试

### 代码高亮

修改模板后需要修改对应的样式表才能支持，我个人也不大需要实时的语法高亮，在修改后的模板上就没有折腾了。

```
{% highlight python %}
```

```
#-----
# Linear interpolation in N-D
#-----

class LinearNDInterpolator(NDInterpolatorBase):
    """
    LinearNDInterpolator(points, values, fill_value=np.nan)

    Piecewise linear interpolant in N dimensions.

    .. versionadded:: 0.9

    Parameters
    -----
    points : ndarray of floats, shape (npoints, ndims); or Delaunay
        Data point coordinates, or a precomputed Delaunay triangulation.
    values : ndarray of float or complex, shape (npoints, ...)
        Data values.
    fill_value : float, optional
        Value used to fill in for requested points outside of the
        convex hull of the input points. If not provided, then
        the default is ``nan``.

    Notes
    -----
    The interpolant is constructed by triangulating the input data
    with Qhull [1]_, and on each triangle performing linear
    barycentric interpolation.
```

## References

-----

.. [1] <http://www.qhull.org/>

"""

```
def __init__(self, points, values, fill_value=np.nan):
    NDInterpolatorBase.__init__(self, points, values, fill_value=fill_value)
    if self.tri is None:
        self.tri = qhull.Delaunay(self.points)
```

```
def _evaluate_double(self, xi):
    return self._do_evaluate(xi, 1.0)
```

```
def _evaluate_complex(self, xi):
    return self._do_evaluate(xi, 1.0j)
```

```
@cython.boundscheck(False)
```

```
@cython.wraparound(False)
```

```
def _do_evaluate(self, double[:,::1] xi, double_or_complex dummy):
```

```
    cdef double_or_complex[:,::1] values = self.values
```

```
    cdef double_or_complex[:,::1] out
```

```
    cdef double[:,::1] points = self.points
```

```
    cdef int[:,::1] simplices = self.tri.simplices
```

```
    cdef double c[NPY_MAXDIMS]
```

```
    cdef double_or_complex fill_value
```

```
    cdef int i, j, k, m, ndim, isimplex, inside, start, nvalues
```

```
    cdef qhull.DelaunayInfo_t info
```

```
    cdef double eps, eps_broad
```

```
    ndim = xi.shape[1]
```

```
    start = 0
```

```
    fill_value = self.fill_value
```

```
    qhull._get_delaunay_info(&info, self.tri, 1, 0)
```

```
    out = np.zeros((xi.shape[0], self.values.shape[1]),
                  dtype=self.values.dtype)
```

```
    nvalues = out.shape[1]
```

```
    eps = np.finfo(np.double).eps * 100
```

```
    eps_broad = sqrt(np.finfo(np.double).eps)
```

```
    with nogil:
```

```
        for i in xrange(xi.shape[0]):
```

```
            # 1) Find the simplex
```

```
            isimplex = qhull._find_simplex(&info, c,
                                           &xi[0,0] + i*ndim,
                                           &start, eps, eps_broad)
```

```
            # 2) Linear barycentric interpolation
```

```
            if isimplex == -1:
```

```
                # don't extrapolate
```

```
                for k in xrange(nvalues):
```

```
                    out[i,k] = fill_value
```

```
                continue
```

```
            for k in xrange(nvalues):
```

```
                out[i,k] = 0
```

```
            for j in xrange(ndim+1):
```

```
                for k in xrange(nvalues):
```

```
                    m = simplices[isimplex,j]
```

```
out[i,k] = out[i,k] + c[j] * values[m,k]
```

```
return out
```

```
{% endhighlight %}
```

## 实时公式预览

这个是很关心的功能，也是Omni解决的很好的功能，预览文件使用的是离线的MathJax只要电脑够快，公式的渲染基本是实时的。（当然每次刷新都要重新渲染，这个是浏览器的固有缺陷，不是MathJax可以马上解决的，不过这种速度的预览我相当可以接受。）

$$\begin{aligned} & f(x+2h) - f(x-2h) - 2(f(x+h) + f(x-h)) \\ &= 4h \frac{d}{dx} f(x) + \frac{16h^3}{6} \frac{d^3}{dx^3} f(x) - 2 \left( 2h \frac{d}{dx} f(x) + \frac{2h^3}{6} \frac{d^3}{dx^3} f(x) \right) + \mathcal{O}(h^5) \\ &= 2h^3 \frac{d^3}{dx^3} f(x) + \mathcal{O}(h^5) \\ \therefore \frac{d^3}{dx^3} f(x) &= \frac{f(x+2h) - f(x-2h) - 2(f(x+h) + f(x-h))}{2h^3} + \mathcal{O}(h^2) \\ F(x) &= \int_0^x f(x) dx \end{aligned}$$

## 图片预览

这个也很重要，文件里插一个图看不到预览是相当不能接受的。支持远程文件的预览很正常，支持本地文件预览就麻烦一些。

远程文件：



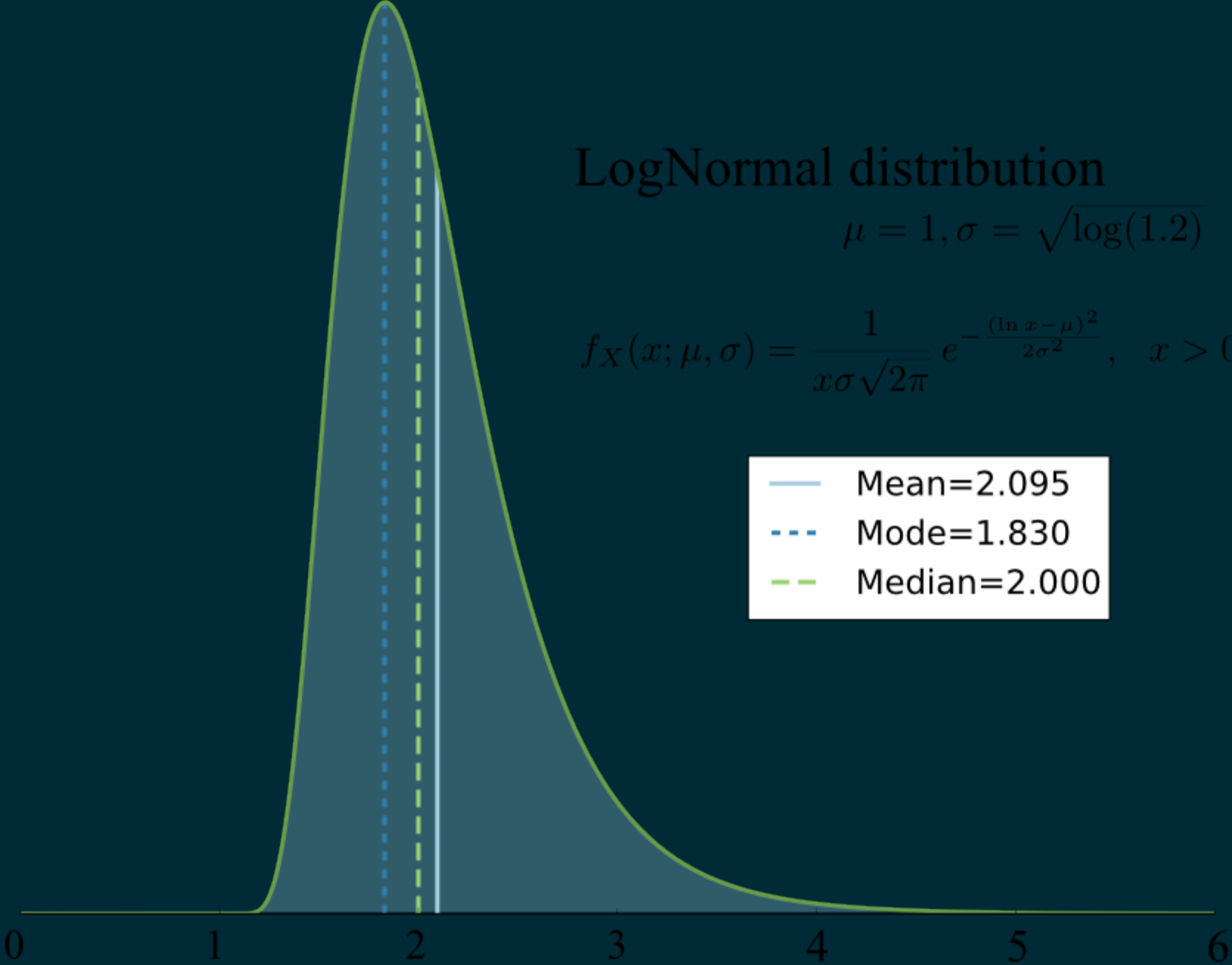
本地文件：

# LogNormal distribution

$$\mu = 1, \sigma = \sqrt{\log(1.2)}$$

$$f_X(x; \mu, \sigma) = \frac{1}{x\sigma\sqrt{2\pi}} e^{-\frac{(\ln x - \mu)^2}{2\sigma^2}}, \quad x > 0$$

- Mean=2.095
- - - Mode=1.830
- - - Median=2.000



可以看到，两种文件都得到了完美的支持。

## 表格支持

Markdown 渲染器支持，应该就没问题。

### Wang Long qi

How	&	Why
1	2	3
A	B	C

## 总结

通过Sublime Text和OmniMarkupPreviewer的合作，Markdown获得了很完美的支持，虽然有一些固有的技术障碍没有解决，不过在现有的组合中这是一个相当不错的解决方案了。如果你要经常编写Markdown文档的话，这是一个不错的解决方案。