CHROMA FREQUENCIES

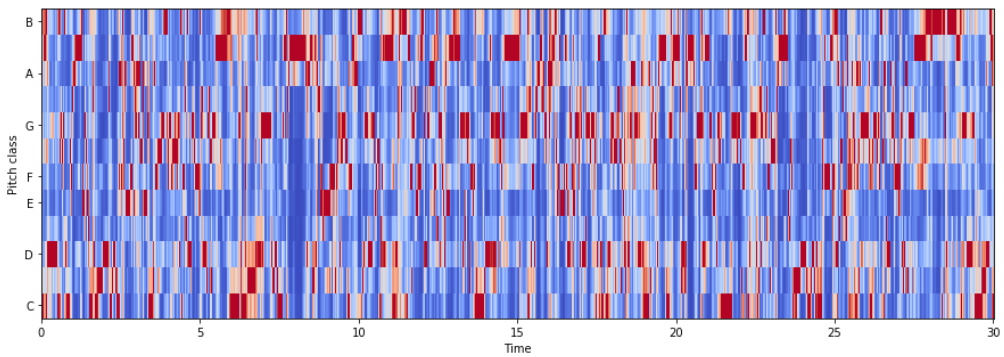
Chroma features are an interesting and powerful representation for music audio in which the entire spectrum is projected onto 12 bins representing the 12 distinct semitones (or chroma) of the musical octave.

In [1]:
```
import librosa as lr
import librosa.display
import matplotlib.pyplot as plt
import matplotlib.style as ms
%matplotlib inline
import numpy as np
import os
```

In [2]:
```
audio='/home/vivek/Genre_Detection/genres/blues/blues.00000
.au'
x , sr =lr.load(audio)
```

In [3]:
```
hop_length = 512
chromagram = librosa.feature.chroma_stft(x, sr=sr, hop_leng
th=hop_length)
plt.figure(figsize=(15, 5))
librosa.display.specshow(chromagram, x_axis='time', y_axis=
'chroma', hop_length=hop_length, cmap='coolwarm')
```

Out[3]:
```
<matplotlib.axes._subplots.AxesSubplot at 0x7fecfa1a47b8>
```



In [4]:
```
#mean of the numpy array returned by chroma_stft
np.mean(chromagram)
```

Out[4]:
```
0.3500881297048735
```

In [ ]:
```

```