**Assignment of Lecture 10**

**[SOLUTION]**

1. **计算结构临界风速**

m/s

m/s

1. 结构顶点风速

===41.95m/s

有可能发生横风向强风共振。

1. 雷诺数计算

说明结构处于跨临界区，结构会发生横风向强风共振。因此，需要进行横风向的涡激共振分析。

1. 确定共振区高度，起始点高度为

=0.03m

临界风区域为0.03-100m

查表=1.56

等效风荷载标准值为

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Point | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|  | 0.004 | 0.02 | 0.047 | 0.087 | 0.140 | 0.206 | 0.282 | 0.367 | 0.458 | 0.55 |

Md1=17KN.m