

教歌软件使用说明

开始

唱歌软件的执行文件名是 `changge.exe`，你把文件解压缩之后，放在任何一个子目录下，再单击它，就可以运行了。但是伴随着一个文件是声音文件，名字是 `chang.wav`，你在执行过程中听到的“唱”的声音，就是这个文件在播放，这当然是我的破锣嗓子的声音。如果你嫌不好听，重新录一个你自己说的“唱”子，存成同样的文件名 `chang.wav`，覆盖它就是了。

进入程序之后，打开一个窗口，上方有几个按钮，其中，“练音模式”按钮你可以先单击，这样就可以用已经制作在程序中的三段练习曲来进行练习了，每一段练习曲都是从 G 调到 F# 调共十二个调都弹一遍，并让学生跟着唱，这样的训练特别重要，能够让学生熟悉各种音调。可以认为只要一个人每天这么跟着唱上十几分钟，半年之内告别五音不全状态。

在练习过程中，如果单击“暂停演奏”按钮，将暂停演奏，可以在这个时候对学生做一些讲解，然后再单击“继续演奏”按钮，就继续刚才的演奏。在

在练音模式的练习过程中，如果再单击“练音模式”按钮，就会中断当前乐句的演奏跳到下一个乐句进行练习。再单击就再跳，反复循环。

当然，学生不能够只练习本程序内部装好的练习曲，而且这些练习曲教歌老师也不一定满意。因此本程序在下方有一个编辑框，你可以在编辑框内输入乐曲，练习曲，等等乐谱。而输入的编码办法是我发明的，因此叫陈必红曲谱浮点数编码法。这种编码法，任何只要对五线谱或者简谱特别熟悉的人，只需要不到十分钟就能够学会，因为它特别对应于这些乐谱。下面就介绍这种编码法。其实，程序打开后，中部就都是编码法的说明了。

乐曲编码说明

钢琴每弹一个键，在这里叫一个音符。任何一段乐曲，都由一些乐句组成，而乐句，乐句是我发明的词，意思教唱歌时教一段，然后大家唱一段，那么一种划分。而乐句里则是由一些音符构成。每一个音符，是两个数字，而且是浮点数，不一定是整数，这才是我的关键性的发明。

例如，1,1 这两个数字代表一个音符，第一个 1，代表的是 1 拍，而第二个 1，代表的是简谱中音高的 1，也就是多来咪发梭拉西的那个多。如果是两拍呢？不要以为是 2，而是 10，我用 10 代表两拍，100 代表三拍，1000 代表四拍，等等。如果是高音 1 呢？那就表示成 10。如果是高高音 1，就是 1 上面加两点，那就表示成 100。如果是低音 1，那就用 0.1 表示，低低音 1，就用 0.01 表示。

还是来说节拍，就是这两个数的第一个数，不能够是随便的数字，1 代表 1 拍，10 代表二拍，100 代表 3 拍，等等。如果是半拍呢？注意，这个时候要用到小数，是 0.1 来表示半拍，而 0.01 代表四分之一拍，0.001 代表八分之一拍，0.0001 代表十六分之一拍。

附点怎么表示？1.1 表示一拍半，而 0.11 表示半拍加四分之一拍，0.011 表示四分之一加八分之一拍，这就都是附点了。也用 1.11 代表一拍后跟两个附点。此外，两拍以上也可以加附点，就是：10.1 表示两拍半，100.1 表示三拍半，1000.1 表示四拍半，等等。如果是 1000.01，这代表四拍加上四分之一拍，依此类推。

三连音呢？就要用到数码 3 了。3，就代表三分之二拍，三个三分之二拍就是一个大的三连音了。如果是 0.3，代表的是三分之一拍，三个正好凑一拍。而 0.03 代表六分之一拍。三连音就只允许这三种情况，不允许其它的情况，至少我现在编的程序就是这么规定的。

节拍的规定就讲这么多。下面再讲音高。

比如说 3 代表 3（咪），30 代表高音 3，0.3 代表低音 3。那么升半调怎么办？如果是 3 要升半调，那用 3.5 表示，如果是高音的 3 要升半调，那用 35 表示，如果是低音的 3 升半调，那用 0.35 表示，也就是说，都在后面加一个 5，就代表升半音了。

哦，还忘了，0，代表休止符。

下面举例子来说明，歌曲小草的简谱中的一段原来是这样：

66 17 6 - | 66 32 3 - |

用我发明的编码法，你只要在我的程序的输入框中输入字符：

0.1,0.6,0.1,0.6,0.1,1,0.1,0.7,10,0.6,0.1,0.6,0.1,0.6,0.1,3,0.1,2,10,3

然后单击“装入”按钮，就能够听到这一段按钮了，就是歌曲一开始的“没有花香，没有树高”了。你只要把上面的这串数码用鼠标选上，然后按住 Ctrl 键不放再按字母 C，这串字符就进了剪粘板了，然后到我的程序的编辑框中，还是按住 Ctrl 键不放，再按字母 V，就将这串字符串从剪粘板粘到编辑框中了，然后再单击我的程序中的“装入”按钮，你就能够听一遍这段乐曲了。这个时候你再单击“练音模式”按钮，程序会将录入的这段乐曲按十二个调从低到高演示并教唱一遍，这就取代了我的程序内部的练习曲了。

进一步的功能

如果用刚才的《小草》歌曲的一段字符串输入，就是

0.1,0.6,0.1,0.6,0.1,1,0.1,0.7,10,0.6,0.1,0.6,0.1,0.6,0.1,3,0.1,2,10,3

有可能不满意在于，有的时候你希望自己或者钢琴唱“没有花香”，这个时候喊一声“唱”，让学生们也唱“没有花香”，然后再示范“没有树高”，再喊一声唱，学生们也再跟着唱“没有树高”，这么一句一句地教。而上面的谱还没有分句。下面介绍分句功能。

在乐谱的任何一个地方，当然，必须是在一对一对音符之间的地方，插入字符“|”注意是英文的输入情况下的插入，不好插入外表看上去一样的中文字符。则这个字符就把前后分成两个乐句了。用这种办法可以将一首乐曲分成多个乐句。

因此，在上面的字符串的适当的地方加入字符“|”如下：

0.1,0.6,0.1,0.6,0.1,1,0.1,0.7,10,0.6|0.1,0.6,0.1,0.6,0.1,3,0.1,2,10,3

因此，一首歌里当然要分成多个乐句，那就都用字符“|”来隔开这些乐句。但是不要在乐曲的一开始和最末尾加这个字符。注意我这里用这个字符并不是乐谱中的分节符的意思，而是教歌过程中的一句的意思。

上面的这一串字符串还有一件事情没有照顾到，就是用什么调唱的问题。如果是练音模式，当然是十二个调都跑一遍，但是教歌模式下，就是当你单击“教歌模式”按钮的时候，程序是一句一句地教的，如果你没有指明什么调，程序默认是用 G 调来教这首歌。但是有可能会太低，或者太高了。

因此，如果你想用别的调来教，比如上面这段《小草》，你想用 C 调来教，那就在乐句的最前面，加上 do=后跟一个大写字母 C 就行了。就是 do=C，因此上面的字符串改为：

do=C0.1,0.6,0.1,0.6,0.1,1,0.1,0.7,10,0.6|0.1,0.6,0.1,0.6,0.1,3,0.1,2,10,3

再用来演奏，单击“装入”按钮然后再单击“教歌模式”按钮后，你会发现程序用新的调 C 来教歌曲了。如果是想用 C 再升调呢？那就是 do=C#，如果是 C 降调，就是 do=Cb，注

意后面这个 **b** 必须是小写，否则程序不认。其实，用字符 “|” 隔开来的每一个乐句，都可以在一开始加上一个 **do=**某大写字母来代表那个乐句的调，因此一首歌在半中腰换调是完全可以的。如果一个乐句的一开始没有 **do=**字符串，则默认就是按前一节的调来，前一节也没有这个字符串就按更前一节，依次类推。如果是第一节呢？如果第一节没有 **do=**字符串，就默认为 **G** 调了。

还有，如果要控制速度，在每一个乐句前面可以加字符 “**s=**” 后跟数字再跟逗号的做法来设置此乐句的演奏速度，例如，“**s=100,**” 的意思就是每分钟一百拍。后面跟的数字必须是二位数或者三位数，否则程序工作不正常。因此一首歌中是可以各个乐句的速度不同的。例如，下面就是用每分钟 80 拍的速度演奏的《小草》的一开始部分：

```
do=C, s=80, 0.1,0.6,0.1,0.6,0.1,1,0.1,0.7,10,0.6|0.1,0.6,0.1,0.6,0.1,3,0.1,2,10,3
```

其它的程序功能，就是可以将你输入的乐谱保存在文件里，或者从文件把你已经编好的乐谱读到程序里，这就有利于你的备课。

还有一件事情忘了讲，就是和声。上面编好的乐曲，似乎单调，是没有和声的。和声怎么录入呢？

如果一个音的节拍数，你给它设成 0，那它就自动和下一个音符构成和声了。因此，比如说，如果你想让大三和弦 1,3,5 一起响，而且只响半拍，那你就输入

```
0,1,0,3,0.1,5
```

就可以了，把上面这串字符粘贴到程序中试试？

还有一个具体的录入格式问题，上面讲了用逗号将各个音符隔开的，逗号之间要不要有别的字符？有空格键是完全可以的，但是不要把一个数弄成两个数的样子就行，也可以回车换行，把它整理得好看一些都是可以的，例如上面的一个例子也可以键成下面这样：

```
do=C  
0.1,0.6, 0.1,0.6, 0.1,1, 0.1,0.7, 10,0.6 |  
0.1,0.6, 0.1,0.6, 0.1,3, 0.1,2, 10,3
```

这样你看起来也许方便一些？反正都是管用的。你把上面三个自然段粘贴到我的程序里，单击“装入”按钮听一下，效果是完全一样的。

讲到这里，就要讲一讲声部了。声部并不是和声，我上面介绍的办法就可以弄和声，如大三和弦什么的，当然，你也可以把和声分成声部，这都可以。如果你想弄声部，每一个乐句，都可以分成一些声部的，当然不能够多，最多不能够超过四十个，否则我的程序受不了。各个声部之间用字符 “&” 隔开，例如：

```
1,1,1,3,1,5, & 1,2,1,4,1,6
```

就是多咪梭和来发拉一起响了。你应当注意到这个例子中 & 字符的前面有一个逗号和前面的 5 是隔开的，否则程序受不了。

因此，整个完全的乐谱结构就是，每一个乐曲由若干个乐句组成，这些乐句由字符 | 隔开，而每一个乐句又可以由若干个声部组成，这些声部由字符 & 隔开，注意这两个字符都必须隔在中间，不能够在一段乐句的两端乱加，否则程序要出错，每一个乐句都可以有自己的调和自己的速度。如果只有一小段旋律又没有声部，则简单地把它输入在输入框中就行了。

还有一个功能就是注释，是与 C 语言中的注释一样的，就是说，字符串 “/*” 代表注释的开始，而 “*/” 代表注释的结束。包含在 “/*” 和 “*/” 之间的任何内容都是被程序忽略的。但是有一点你必须注意，就是你这个注释不能够乱插，就是说，一段乐谱在去掉注释之后，它还必须是完整的，因此，比如你不能够将注释插在一对表示节拍和音高的数的中间。

例如，上面的那个《小草》的例子，如果把前面一句给注释上，就是：

```
do=C  
/*0.1,0.6, 0.1,0.6, 0.1,1, 0.1,0.7, 10,0.6 */
```

0.1,0.6, 0.1,0.6, 0.1,3, 0.1,2, 10,3

这样程序就只演奏后面的一句“没有树高”了。

注释的一个很大的好处，在于你录入一大段曲谱的时候，你可以把已经录入的前面一大段都先给注释上，则再单击“装入”按钮的时候，就只把你后面的乐句给演奏出来。等乐曲全部输入完后，你可以将注释去掉即可。

此外，在乐曲中插入注释，还可以在乐曲中适当的地方加以评注，例如某个地方写上“/*这个地方是难点*/”等语句。

主要功能就这么多了。

有了这个程序，教歌老师就相当于有了一部钢琴，以后到各家去教歌，只需要带一部手提电脑就行了，而且教歌的时候不必专注于弹琴了，专注于小孩的唱就行了，这将大大减轻老师的劳动啊！

此外用这个程序来作曲也是很方便的，现在作曲家不都是在用钢琴来作曲吗？

还有，可以方便网上的传输。例如，作曲系的学生，作了一个曲子，可以用电子邮件将谱发给老师，老师可以直接用注释的办法给曲子作评注，且将曲子从电子邮件中立即粘贴到程序中奏上一遍，而不必自己亲自跑到钢琴边上去弹。这都是很方便教学的。

文件保存

当在编辑框中输入一段乐谱后，需要保存它，可以单击“存为文件”按钮，就可以将这段乐谱保存为文本文件了。下一次再想调出来，就单击“读入文件”按钮，就可以将以前保存的文本文件放入编辑框中，再单击“装入”按钮就可以用程序演奏了。

如果是想把最后编辑好的乐曲存为 midi 文件，可以单击“存为 midi 文件按钮”，就可以将编辑框中的内容转成为 midi 文件的格式，这样的文件可以用任何播放软件来播放，可以存放在手机中，而且文件特别小，是很方便的。但是你不能够将已经存好 midi 文件再读回到编辑框，那怨我没有这种技术能力。因此，千万不要忘记保存成文本文件且不要把文本文件给弄丢了。

例子

下面再给出一些我录的曲子，当然不是太好听，也可能有错误，但是给大家一个参考吧。你把这些曲子中的任何一个，用拷贝粘帖的办法弄到本程序的编辑框中再单击“装入”按钮，就可以用它来练习或者教歌了。

《丢手绢》：

```
do=C0.11,5,0.01,3,0.1,2,0.1,3,10,5|
0.11,5,0.01,3,0.1,2,0.1,3,10,5|
0.1,5,1,5,0.1,3,1,6,1,5,0.1,3,0.1,5,0.1,3,0.1,2,1,1,1,2,1,3,1,5,
0.11,3,0.01,2,0.1,1,0.1,2,10,3|
0.1,6,0.1,5,0.1,6,0.1,5,0.1,2,0.1,3,1,5|0.1,6,0.1,5,0.1,6,0.1,5,0.1,2,0.1,3,1,5|
0.1,6,0.1,5,0.1,6,0.1,5,1,2,1,3,10,1
```

《茉莉花》：

```
do=B0.1,3,0.01,3,0.01,5,0.01,6,0.01,5,0.01,10,0.01,6,0.01,5,0.01,3,1,5,0.1,6|
```

0.1,10,0.01,20,0.01,30,0.01,20,0.01,10,0.01,6,0.01,10,10,5|
0.01,5,0.01,3,1,5,0.1,6,0.1,10,0.01,20,0.01,30,0.01,10,0.01,6,0.1,5|
0.1,5,0.1,2,0.01,3,0.01,5,0.01,3,0.01,2,0.01,1,0.01,0.6,1.1,1|
0.01,3,0.01,2,0.1,1,0.11,2,0.01,3,0.1,5,0.01,6,0.01,10,0.1,6,0.1,5|
0.1,5,0.1,2,0.01,3,0.01,5,0.01,3,0.01,2,0.01,1,0.01,2,1,0.6,0.1,1|
0.11,2,0.01,3,0.01,1,0.01,2,0.01,1,0.01,0.6,0.01,1,0.01,0.6,1.1,0.5

《请把我的歌带回你的家》:

do=C0.1,0.6,0.1,0.6,0.1,1,0.1,2,1.1,3,0.1,5|
0.1,6,0.1,0.6,0.1,1,0.1,2,10,3|
0.1,2,0.1,2,0.1,2,0.1,3,0.1,5,0.1,5,0.1,5,0.1,6,1000,3|
0.1,0.6,0.1,0.6,0.1,1,0.1,2,1.1,3,0.1,5|
0.1,6,0.1,0.6,0.1,1,0.1,2,10,3|
0.1,2,0.1,2,0.1,2,0.1,3,0.1,5,0.1,5,1,0.5,1000,0.6|
0.11,10,0.01,10,0.1,10,0.1,10,0.1,6,0.1,7,1,10|
0.11,10,0.01,10,0.1,10,0.1,10,0.1,6,0.1,7,1,10|
0.11,20,0.01,20,0.1,20,0.1,20,1,10,1,20,1000,7|
0.11,10,0.01,10,0.1,10,0.1,10,0.1,6,0.1,7,1,10|
0.11,10,0.01,10,0.1,10,0.1,10,0.1,6,0.1,7,1,10|
0.11,20,0.01,20,0.1,20,0.1,10,1,7,0.1,5.5,0.1,7,1000,6

《找朋友》:

do=C0.11,5,0.01,6,0.1,5,0.1,6,0.1,5,0.1,6,1,5|
0.1,5,0.1,10,0.1,10,0.1,6,1,5,1,3|
0.1,5,0.1,5,0.1,3,0.1,3,0.1,5,0.1,5,1,3|
0.1,2,0.1,5,0.1,3,0.1,2,0.1,1,0.1,2,1,1

《自由飞翔》:

0.1,0.6,0.1,0.6,0.1,1,0.1,2,10,3|0.1,2,0.1,2,0.1,0.5,0.1,0.7,10,0.6
|0.1,1,0.1,1,0.1,0.6,0.1,0.5,0.1,1,0.1,2,0.1,3,0.1,5,0.1,3,0.1,0.6,0.01,1,0.01,2,0.1,3,10,2
|0.1,3,0.1,3,0.1,3,0.1,5,1.1,6,0.01,5,0.01,3|0.1,2,0.1,2,0.1,2,0.1,3,0.1,1,0.1,0.6,1,0.6
|0.1,2,0.1,2,0.1,3,0.1,5,0.1,0.5,0.01,0.6,0.01,0.5,0.1,0.3,0.1,0.5
|0.1,2,0.1,2,0.1,0.5,0.1,0.7,10,0.6|0.1,6,0.1,6,0.1,3,0.1,10,10,6
|0.1,5,0.1,5,0.1,2,0.1,5,10,3|0.1,6,0.1,6,0.1,3,0.1,3,10,2
|0.1,5,0.1,5,0.1,2,0.1,1,10,3|0.1,6,0.1,6,0.1,3,0.1,10,10,6
|0.1,5,0.1,5,0.1,2,0.1,5,10,3|0.1,6,0.1,6,0.1,3,0.1,1,10,2
|0.1,5,0.1,5,0.1,3,0.1,5,10,6

《给爱丽丝》(摘自虫虫钢琴网站 <http://www.gangqinpu.com/html/130.htm>):

do=Cs=60,0.01,30,0.01,25,0.01,30,0.01,25,0.01,30,0.01,7,0.01,20,0.01,10,|
0,6,0.01,0.06,0.01,0.3,0.01,0.6,0.01,1,0.01,3,0.01,6,|
0,7,0.01,0.03,0.01,0.3,0.01,0.55,0.01,3,0.01,5.5,0.01,7,|
0,1,0.01,0.06,0.01,0.3,0.01,0.6,0.01,3,0.01,30,0.01,25,|
0.01,30,0.01,25,0.01,30,0.01,7,0.01,20,0.01,10,|
0,6,0.01,0.06,0.01,0.3,0.01,0.6,0.01,1,0.01,3,0.01,6,|
0,7,0.01,0.03,0.01,0.3,0.01,0.55,0.01,3,0.01,10,0.01,7,|
0,6,0.01,0.06,0.01,0.3,0.1,0.6,0.01,30,0.01,25,|
0.01,30,0.01,25,0.01,30,0.01,7,0.01,20,0.01,10,|

0,6,0.01,0.06,0.01,0.3,0.01,0.6,0.01,1,0.01,3,0.01,6,|
0,7,0.01,0.03,0.01,0.3,0.01,0.55,0.01,3,0.01,5.5,0.01,7|
0,10,0.01,0.06,0.01,0.3,0.01,0.6,0.01,3,0.01,30,0.01,25|
0.01,30,0.01,25,0.01,30,0.01,7,0.01,20,0.01,10|
0,6,0.01,0.06,0.01,0.3,0.01,0.6,0.01,1,0.01,3,0.01,6|
0,7,0.01,0.06,0.01,0.3,0.01,0.6,0.01,3,0.01,10,0.01,7|
0,6,0.01,0.06,0.01,0.3,0.01,0.6,0.01,7,0.01,10,0.01,20,|
0,30,0.01,0.1,0.01,0.5,0.01,1,0.01,5,0.01,40,0.01,30,|
0,2,0.01,0.05,0.01,0.5,0.01,0.7,0.01,4,0.01,30,0.01,20,|
0,10,0.01,0.06,0.01,0.3,0.01,0.6,0.01,3,0.01,20,0.01,10,|
0,7,0.01,0.03,0.01,0.3,0.01,3,0.01,3,0.01,30,0.01,3,|
0.01,30,0.01,30,0.01,300,0.01,25,0.01,30,0.01,25,|
0.01,30,0.01,25,0.01,30,0.01,25,0.01,30,0.01,25,|
0.01,30,0.01,25,0.01,30,0.01,7,0.01,20,0.01,10,|
0,6,0.01,0.06,0.01,0.3,0.01,0.6,0.01,1,0.01,3,0.01,6,|
0,7,0.01,0.03,0.01,0.3,0.01,0.55,0.01,3,0.01,5.5,0.01,7,|
0,10,0.01,0.06,0.01,0.3,0.01,0.6,0.01,3,0.01,30,0.01,25,|
0.01,30,0.01,25,0.01,30,0.01,7,0.01,20,0.01,10,|
0,6,0.01,0.06,0.01,0.3,0.01,0.6,0.01,1,0.01,3,0.01,6,|
0,7,0.01,0.03,0.01,0.3,0.01,0.55,0.01,3,0.01,10,0.01,7,1,6

《重返苏莲托》(摘自孟江南, 孟楠编《世界名歌精选》)

do=G,s=66,0.1,0.6,0.1,0.7,0.1,1,0.1,2,0.1,3,0.1,1,1,3,10,3|
0.1,2,0.1,3,0.1,4,0.1,2,0.1,4,0.1,2,1,6,10,6|
0.1,6,0.1,7,0.1,10,0.1,7,0.1,6,0.1,7,1,3,10,3|
0.1,2,0.1,3,0.1,2,0.1,1,0.1,0.7,0.1,1,100,0.6|
do=E,0.1,10,0.1,7,0.1,5,0.1,6,0.1,7,0.1,5,1,6,10,6|
0.1,7,0.1,6,0.1,5,0.1,6,0.1,7,0.1,5,1,6,10,6|
0.1,3,0.1,4,0.1,5,0.1,3,0.1,2,0.1,1,1,4,10,4|
0.1,5,0.1,6,0.1,7,0.1,6,0.1,5,0.1,7,100,3|
0.1,10,0.1,7,0.1,5,0.1,6,0.1,7,0.1,5,1,6,10,6|
0.1,20,0.1,10,0.1,7,0.1,10,0.1,20,0.1,7,1,10,10,10|
0.1,10,0.1,20,0.1,25,0.1,10,0.1,10,0.1,20,1,5,10,5|
0.1,4,0.1,5,0.1,4,0.1,2.5,0.1,2,0.1,2.5,100,1|
0.1,10,0.1,20,1.1,7,0.1,6,100,10,|
0.1,0,0.1,7,0.1,10,0.1,20,0.1,7,0.1,6,1,5,10,5,|
1,4,1,5,5,1,10,1.1,25,0.1,20,1.1,10,0.1,20,1.1,7,0.1,7,100,10

《圣母颂》(摘自《巴斯蒂安钢琴教程》)

do=C,s=120,1,3,1,3,1,4,1,5,1,5,1,4,1,3,1,2 & 1000,0.1,1000,0.2|
1,1,1,1,1,2,1,3,1,1,3,0.1,2,10,2 & 10,0.3,10,0.4,10,0.5,10,0.4,|
1,3,1,3,1,4,1,5,1,5,1,4,1,3,1,2 & 1000,0.1,1000,0.2|
1,1,1,1,1,2,1,3,1,1,2,0.1,1,10,1 & 10,0.3,10,0.4,10,0.5,0.3,10,0.1,|
1,2,1,2,1,3,1,1,2,0.1,3,0.1,4,1,3,1,1 & 1000,0.5,1000,0.5,|
1,2,0.1,3,0.1,4,1,3,1,2,1,1,1,2,10,0 & 10,0.5,10,0.55,1,0.6,1,0.45,10,0.5,|
1,3,1,3,1,4,1,5,1,5,1,4,1,3,1,2 & 1000,0.1,1000,0.2|

1,1,1,1,2,1,3,1,1,2,0,1,1,10,1 & 10,0,3,10,0,4,10,0,5,0,0,1,10,0,3

《浏阳河》(陈静斋编曲, 摘自但昭义, 王雁的《新编钢琴入门与进阶》)

do=G,s=80,0.1,50,0.01,60,0.01,100,0.01,60,0.01,50,0.01,30,0.01,50,0.1,30,1.1,20 & 1,0,1,0,1,0,5,0,1,0,6,1,1,0,1,2,0,1,3|
0.1,10,0.01,10,0.01,20,0.1,50,0.1,30,0.01,20,0.01,30,1.1,10 & 1,5,1,0,5,1,1,0,1,0,6,0,1,0,5|
0.1,50,0.01,30,0.01,50,0.11,60,0.01,50,0.11,30,0.01,50,1,30 & 1,0,3,1,0,5,1,0,6,1,1|
0.11,20,0.01,10,0.1,6,0.1,5,10,10,& 10,2,0,11,1,0,0,1,0,6,0,1,0,5,0,1,0,6,|
1,0,0,30,0.1,5,0,30,0.1,5,1,0,0,30,0.1,7,0,30,0.1,7 & 0.1,1,1,1,0,0,1,2,0,0,1,3,0,1,5,1,5,0,1,3 |
0.1,0,0,20,0.1,6,0,20,0.1,6,0,20,0.1,6,0,1,0,0,10,0,1,6,0,1,20,0,1,30 & 0.11,2,0,0,1,1,0,1,0,6,0,1,0,5,0,1,1,1,1,0,6 |
0.1,50,0.1,100,0.11,60,0.01,50 0.1,30,0.1,50,0.1,6,0,1,5,& 1,0,3,1,0,5,1,0,6,1,1|
0.1,10,0.01,10,0.01,20,0.01,50,0.01,60,0.01,50,0.01,30,0.11,20,0.01,30,0.01,10,0.01,20,0.01,10,0.01,6,& 1,0,6,1,1,1,3,1,0,2,|
10,5,0,100,0,200,10,500 & 10,0,5,10,0,05

《在北京的金山上》(张育青编曲, 摘自但昭义, 王雁的《新编钢琴入门与进阶》)

do=C,s=80,0.1,6,0.1,10,0.1,20,0.1,30,0.1,6,0.1,10,0.1,20,0.1,30,&
0.1,0,6,0,1,1,3,0,1,0,1,3,0,1,0,6,0,1,1,3,0,1,0,1,3 |
0.1,3,0,1,5,0,1,6,0,1,10,0,6,1,20,0,0,1,20,0,0,1,10,0,0,1,10,0,0,1,6,&
0,0,7,1,2,0,0,6,1,1,0,1,0,2,0,0,6,0,1,1,2,0,0,6,0,1,0,1,2|
1,1,6,0,0,1,10,0,0,1,6,0,6,0,1,3,0,6,0,1,3,0,6,0,1,3,0,1,0,&
0.1,0,6,0,1,1,3,0,1,0,1,3,0,1,0,1,0,6,0,1,0,1,0,6,0,1,0,1,0,6,0,1,0|
1,6,0,1,6,0,1,10,1,30,0,1,30,0,1,20,1,10,0,1,20,0,1,30,0,20,1,6,0,0,1,20,0,0,1,10,0,0,1,10,0,0,1,6,&
0.1,0,6,0,3,1,1,0,1,0,1,3,0,1,0,6,0,3,1,1,0,1,0,1,3,0,1,0,4,0,0,6,1,2,0,0,6,0,1,2,0,1,0,2,0,0,6,0,1,1,2,0,0,6,0,1,0,1,2,|
100,6,1,10 & 0.1,0,6,0,3,1,1,0,1,0,1,3,0,1,0,6,0,3,1,1,0,1,0,1,3|
0,30,1,6,0,1,20,0,0,1,10,0,0,1,6,1,10,0,1,20,0,1,30,&
0.1,0,4,0,0,1,0,6,0,0,1,2,1,4,0,1,0,3,0,0,1,0,6,0,0,1,1,1,3|
1,6,0,1,10,0,1,20,1,6,0,0,1,6,0,0,1,5,0,0,1,5,0,0,1,3,&
0.1,0,2,0,0,1,0,4,0,0,1,0,6,1,2,0,1,0,1,0,0,1,0,3,0,0,1,0,6,1,1,|
1000,3, & 0.1,0,0,3,0,0,1,0,0,7,0,0,1,0,3,0,1,0,5,0,1,0,3,0,1,0,0,3,0,0,1,0,0,7,0,0,1,0,3,0,1,0,5,0,1,0,3,|
0.1,0,1,6,0,1,6,0,1,5,0,3,0,1,0,7,0,1,0,1,6,0,1,6,0,1,5,0,3,0,1,0,7,&
0,0,0,6,1,1,0,3,0,0,3,0,1,0,5,0,0,0,6,1,1,0,3,0,0,3,0,1,0,5,|
0,3,0,1,6,0,1,6,0,1,10,0,1,30,0,20,1,6,0,0,1,20,0,0,1,10,0,0,1,10,0,0,1,6,&
0.1,0,1,0,6,0,1,0,6,0,1,0,5,0,1,0,3,0,1,0,2,0,0,6,1,2,0,0,6,0,1,2,|
1000,6, & 0.1,0,0,6,0,0,1,0,3,0,0,1,0,6,0,1,1,0,1,0,6,0,1,0,0,6,0,0,1,0,3,0,0,1,0,6,0,1,1,0,1,0,6,|
0.1,10,0,0,1,6,0,0,1,10,0,1,20,0,1,30,0,1,6,0,0,1,6,0,0,1,5,1,3,&
0,0,6,0,1,1,1,3,0,0,6,0,1,0,1,3,0,0,7,1,1,0,3,0,0,7,0,1,0,3,|
0.1,3,0,1,5,0,6,0,1,3,0,1,10,0,20,1,6,0,0,1,20,0,0,1,10,0,0,1,10,0,0,1,6,&
0.1,1,0,1,0,7,0,0,6,1,1,0,1,0,2,0,0,6,0,1,1,2,0,0,6,0,1,0,1,2,|
1,1,6,0,0,1,10,0,0,1,6,0,6,0,1,3,0,6,0,1,3,0,6,0,1,3,&
0.1,0,6,0,1,1,3,0,1,0,1,3,0,1,0,1,0,6,0,1,0,1,0,6,0,1,0,1,0,6

《三十里铺》(黎英海编曲, 摘自但昭义, 王雁的《新编钢琴入门与进阶》)

do=C,s=80,0.1,10,1,20,0.1,20,0.1,50,1,10,0.1,6,0.11,5,0.01,6,0.1,5,0.1,2,10,5,&
1,0,0,0,5,0,2,1,4,0,0,5,0,2,1,4,0,0,6,0,1,1,4,0,0,65,1,2,5,1,1,0,0,65,1,0,5,1,0,2,|
0.1,10,1,20,0.1,20,0.1,50,1,10,0.1,6,0.11,5,0.01,6,0.1,5,0.1,2,10,5,&
1,0,4,0,0,5,0,2,1,4,0,0,5,0,2,1,4,,0,0,6,0,1,1,4,,0,0,65,1,2,5,1,1,0,0,65,1,0,5,1,0,2,|
0.1,10,0,4,1,1,0,5,0,1,2,0,10,0,1,4,0,10,1,4,0,6,0,1,2,0,5,0.11,2,0,0,1,6,0,1,5,0,1,2,0,5,0.11,2,0,0,1,3,0,1,2,0,1,0,6,&
1,0,1,1,0,6,1,0,2,1,0,4,10,0,6,0,0,7,10,0,3,|

0,1,0.11,4,0.01,4,0.1,3,0.1,2,0.1,1,0.1,2,0.1,5,0.01,5,0.01,2,1000,1,&
10,0,4,0,0.5,10,0.65,0,0.6,0.11,0,4,0.01,0,4,0.1,0.3,0.1,0.2,0,0.5,1,0.1,0.1,0.06,0.1,0.05,|
0.1,10,1,20,0.1,20,0.1,50,1,10,0.1,6,0.11,5,0.01,6,0.1,5,0.1,2,10,5,&
1,0,4,0,0.5,0,2,1,4,0,0.5,0,2,1,4,,0,0.6,0,1,1,4,,0,0.65,1,2.5,1,1,0,0.65,1,0.5,1,0.2,|
0.1,10,1,20,0.1,20,0.1,50,1,10,0.1,6,0.11,5,0.01,6,0.1,5,0.1,2,10,5,&
1,0,4,0,0.5,0,2,1,4,0,0.5,0,2,1,4,,0,0.6,0,1,1,4,,0,0.65,1,2.5,1,1,0,0.65,1,0.5,1,0.2,|
0.1,10,0,4,1,1,0,5,0,1,2,0,10,0,1,4,0,10,1,4,0,6,0,1,2,0,5,0.11,2,0.01,6,0.1,5,0.1,2,0,5,0.11,2,0.01,3,0.1,2,0.1,0.6,&
1,0,1,1,0.6,1,0.2,1,0.4,10,0.6,0,0.7,10,0.3,|
0,1,0.11,4,0.01,4,0.1,3,0.1,2,0.1,1,0.1,2,0.1,5,0.01,5,0.01,2,100000,1,&
10,0,4,0,0.5,10,0.65,0,0.4,0.11,0,6,0.01,0,4,0.1,0.3,0.1,0.2,0,0.6,0.1,0.1,0.1,0.2,0.1,0.5,0.1,0.2,0,0.5,10,0.1
《月亮代表我的心》(摘自虫虫钢琴网站 <http://www.gangqinpu.com>)
do=C,s=100,10,50,0.1,50,0.1,30,0.1,10,0.1,7 &
0.1,0.1,0.1,0.5,0.1,3,0.1,1,10,5,|
1000,30,&0.1,0.06,0.1,0.6,0.1,3,0.1,1,10,6,|
10,60,0.1,60,0.1,40,0.1,20,0.1,10,& 0.1,0.04,0.1,0.1,0.1,0.6,0.1,0.4,10,4,|
100.1,7,& 0.1,0.05,0.1,0.2,0.1,0.7,0.1,0.6,1.1,0.5,|
0.1,5,1.1,10,0.1,30,1.1,50,0.1,10,&0.1,0,0.1,0.1,0.1,0.5,0.1,1,0.1,0.5,0.1,3,0.1,0.5,0.1,1,0.1,0.5,|
1.1,7,0.1,30,1.1,50,&0.1,0.3,0.1,0.7,0.1,3,0.1,0.7,0.1,5,0.1,0.7,0.1,3|
0.1,50,1.1,60,0.1,70,1.1,100,0.1,60,100,50,&
0.1,0.7,0.1,0.4,0.1,1,0.1,4,0.1,1,0.1,6,0.1,1,0.1,4,0.1,1,0.1,0.1,0.1,0.5,0.1,1,0,4,0.1,2,0,3,0.1,1,0.1,0.5,|
0.1,30,0.1,20,1.1,10,0.1,10,1,10,&0.1,0.07,0.1,0.5,0.1,0.06,0.1,0.3,0.1,1,0.1,0.7,0.1,0.6,0.1,0.3,|
0.1,30,0.1,20,1.1,10,0.1,10,1,10,&0.1, 0.1,0.1,0.07,0.1,0.04,0.1,0.1,0.1,0.6,0.1,0.5,0.1,0.4,0.1,0.1,|
0.1,20,0.1,30,1.1,20,0.1,10,1,6,0.1,20,0.1,30,100,20,
&0.1,0.06,0.1,0.05,0.1,0.2,0.1,0.6,0.1,2,0.1,0.6,0.1,4.5,0.1,0.6,0.1,2,0.1,0.6,0.1,0.05,0.1,0.2,0.1,0.7,0.1,0.6,0.1,0.5,0.1,0.4|
0.1,0,0.1,5,1.1,10,0.1,30,1.1,50,0.1,10,1.1,7,0.1,30,1,50,&
0.1,0.2,0.1,0.07,0.1,0.1,0.1,0.5,0.1,1,0.1,0.5,0.1,3,0.1,0.5,0.1,1,0.1,0.5,0.1,0.3,0.1,0.7,0.1,3,0.1,0.7,0.1,5,0.1,0.7|
0.1,0,0.1,50,1.1,60,0.1,70,1.1,100,0.1,60,100,50,&
0.1,3,0.1,0.7,0.1,0.4,0.1,1,0.1,4,0.1,1,0.1,6,0.1,1,0.1,4,0.1,1,0.1,0.1,0.1,0.5,0.1,1,0.1,0.5,0.1,3,0.1,0.5,|
0.1,30,0.1,20,1.1,10,0.1,10,1,10,0.1,30,0.1,20,1.1,10,0.1,10,1,10,&
0.1,0.07,0.1,0.5,0.1,0.06,0.1,0.3,0.1,1,0.1,0.7,0.1,0.6,0.1,0.3,0.1,0.1,0.1,0.07,0.1,0.04,0.1,0.1,0.1,0.6,0.1,0.5,0.1,0.4,0.1,0.1,|
0.1,20,0.1,30,1.1,20,0.1,6,1,7,0.1,10,0.1,20,100,10,&
0.1,0.06,0.1,0.05,0.1,0.2,0.1,0.6,0.1,2,0.1,0.6,0.1,0.05,0.1,0.2,0.1,0.5,0.1,0.2,0.1,0.1,0.1,0.5,0.1,1,0.1,2,0.1,3,0.1,5|
0.10,0.1,30,0.1,50,0.30,1.1,10,0.1,20,1,10,0.50,1,30,0.7,100,5,&
1,0,0.1,0.1,0.1,0.5,0.1,1,0.1,0.5,0.1,3,0.1,0.5,0.1,1,0.1,0.5,0.1,0.03,0.1,0.07,0.1,0.3,0.1,0.07,0.1,0.5,0.1,0.07,|
0.1,6,0.1,7,0.6,1.1,4,0.1,7,0.6,1.4,1,5,0.30,0.10,100,5,&
0.1,0.3,0.1,0.07,0.1,0.02,0.1,0.06,0.1,0.2,0.1,0.06,0.1,0.05,0.1,0.2,0.1,0.5,0.1,0.2,0.1,0.1,0.1,0.5,0.1,1,0.1,0.5,0.1,3,0.1,0.5,|
0.50,1,30,0.30,1.1,10,0.1,20,1,10,0.50,1,30,0.7,100,5,&
0.1,1,0.1,0.5,0.1,0.1,0.1,0.5,0.1,1,0.1,0.5,0.1,3,0.1,0.5,0.1,1,0.1,0.5,0.1,0.03,0.1,0.07,0.1,0.3,0.1,0.07,0.1,0.5,0.1,0.07,|
0.1,6,0.1,7,0.10,1.1,6,0.10,1.6,0.10,1.6,0.1,20,0.1,30,0.20,0.7,100,5,&
0.1,0.3,0.1,0.07,0.1,0.02,0.1,0.06,0.1,0.2,0.1,0.45,0.1,0.6,0.1,0.45,0.1,0.2,0.1,0.06,0.1,0.05,0.1,0.2,0.1,0.7,0.1,0.6,0.1,0.5,0.1,0.4,|
0.1,0,0.1,5,1.1,10,0.1,30,1.1,50,0.1,10,1.1,7,0.1,30,1,50,&
0.1,0.2,0.1,0.07,0.1,0.1,0.1,0.5,0.1,1,0.1,0.5,0.1,3,0.1,0.5,0.1,1,0.1,0.5,0.1,0.3,0.1,0.7,0.1,3,0.1,0.7,0.1,5,0.1,0.7,|
0.1,0,0.1,50,1.1,60,0.1,70,1.1,100,0.1,60,100,50,&
0.1,3,0.1,0.7,0.1,0.4,0.1,1,0.1,4,0.1,1,0.1,6,0.1,1,0.1,4,0.1,1,0.1,0.1,0.1,0.5,0.1,1,0.1,2,0.1,3,0.1,5,|

0.1,30,0.1,20,1.1,10,0.1,10,1,10,&
1,0,0.1,0.06,0.1,0.3,0.1,1,0.1,0.7,0.1,0.6,0.1,0.3|
0.1,30,0.1,20,1.1,10,0.1,10,1,10,&
0.1,0.1,0.1,0.07,0.1,0.04,0.1,0.1,0.1,0.6,0.1,0.5,0.1,0.4,0.1,0.1,|
0.1,20,0.1,30,1.1,20,0.1,6,1,7,0.1,10,0.1,20,0.1,10,0.1,30,0.1,20,0.1,10,1,7,0.5,1,50,&
0.1,0.06,0.1,0.05,0.1,0.2,0.1,0.6,0.1,2,0.1,0.6,0.1,0.05,0.1,0.2,0.1,0.5,0.1,0.2,0.1,0.1,0.1,0.5,0.1,1,0.1,0.5,
0.1,0.05,0.1,0.2,0.1,0.5,0.1,0.2,|
0,10,1.1,100,0,30,0.1,300,0,50,1.1,500,0,10,0.1,100,&
0.1,0.1,0.1,0.5,0.1,1,0.1,0.5,0.1,3,0.1,0.5,0.1,1,0.1,0.5,|
0,7,1.1,70,0,30,0.1,300,0,50,1.1,500,0,50,0.1,500,&
0.1,0.03,0.1,0.07,0.1,0.3,0.1,0.07,0.1,0.5,0.1,0.07,0.1,0.3,0.1,0.07,|
0,60,1.1,600,0,70,0.1,700,0,100,1.1,1000,0,60,0.1,600,&
0.1,0.04,0.1,0.1,0.1,0.4,0.1,0.1,0.1,0.6,0.1,0.1,0.1,0.4,0.1,0.1,|
0,50,100,500,0.1,30,0.1,20,& 0.1,0.1,0.1,0.5,0.1,1,0.1,2,0.1,3,0.1,5,1,0,|
0,10,1.1,6,0,10,0.1,6,0,10,1,6,0.1,30,0.1,20,&
0.1,0.06,0.1,0.3,0.1,0.6,0.1,0.3,0.1,1,0.1,0.3,0.1,0.05,0.1,0.3,|
0,10,1.1,6,0,10,0.1,6,0,10,1,6,0.1,20,0.1,30,&
0.1,0.04,0.1,0.1,0.1,0.4,0.1,0.1,0.1,0.6,0.1,0.1,0.1,0.4,0.1,0.1,|
0,20,1.1,4,5,0.1,6,0,7,1,5,0.1,10,0.1,20,&
0.1,0.2,0.1,0.6,0.1,2,0.1,0.6,0.1,0.05,0.1,0.2,0.1,0.5,0.1,0.2,|
0,10,0,5,1,3,0,50,0.1,30,0,40,0.1,20,0,10,1,30,0,20,0.1,7,0,10,0.1,6,&
0.1,0.1,0.1,0.5,0.1,1,0.1,0.5,0.1,0.06,0.1,0.3,0.1,0.6,0.1,0.3,|
0,10,1,6,0,7,0.1,5,0,6,0.1,4,0,4,0,5,5,1,10,0,4,0,5,5,1,20,0,50,0,30,0,10,1000,5,&
0.1,0.04,0.1,0.1,0.1,0.4,0.1,0.1,0.1,0.5,1000,1
《映山红》(黄佩莹 编曲, 摘自但昭义, 王雁的《新编钢琴入门与进阶》)
do=B,s=60,0.1,0.1,0.1,0.5,0.1,0.4,0.1,0.3,0.01,0.1,0.01,0.07,1,0.05,0.1,0.07,0.1,0.1,0.1,0.4,0.01,0.4,0.01,0.3,0.1,0.1,
0.01,0.07,0.11,0.1,|
0,500,0.01,200,0,600,0.11,300,|
0.1,30,0.1,30,0.1,30,0.1,10,0.01,20,0.11,30,0,60,1,300,& 0,0.6,0.1,10,3,0,0.6,0.1,10,3,|
1,6,0.1,10,0.1,20,0.01,20,0.11,10,0.001,300,0.001,200,0.11,100,& 0,0.3,0,0.6,10,1,0,0.3,0,0.6,10,1,|
0.1,6,0.1,10,0,30,0,60,0.1,300,0.1,10,0.001,20,0.001,30,0.11,20,0,200,0.1,60,0.1,30,&
0,0.6,0.1,10,3,0,0.4,0,0.6,10,2,|
0.1,6,0.1,30,0,20,0,60,0.01,200,0.01,10,0.1,6,0.01,6,0.11,5,1,0,& 0,1,0,0.6,10,0.3,0,0.7,1,0.5,1,0.05,|
0.1,0,0,10,0.1,3,0.1,0,0,10,0.1,3,0.1,0,0.1,3,0.1,5,0.1,6,& 0.1,1,0.01,1,0.01,0.6,0.1,0.3,0.01,0.5,0.01,0.6,10,1,|
0.1,0,0,20,0.1,6,0.1,0,0,20,0.1,6,0.1,0,0,10,0.1,60,0.1,50,0.1,30,& 1,2,0.1,2,0.1,1,0.01,2,0.11,3,1,0,|
0.1,2,0.1,3,0.1,5,0.01,3,0.01,1,0.001,2,0.001,3,0.11,2,0.1,0,0.1,3 & 0.1,0,0,10,0.1,50,0.1,0,0,10,0.1,50,0.1,0,0.1,5,0.1,6,0.1,10,|
0.1,5,0.1,3,0.1,2,0.01,1,0.01,0.6,10,1, & 0.1,0,0,10,0.1,50,0.1,0,0,10,0.1,50,0.1,0,0.1,3,0.1,5,0.1,6,|
0,3,0.1,10,0.01,10,0.01,6,0.1,5,0.01,6,0.01,10,0,5,5,0,7,10,30,&
0.1,0.06,0.1,0.6,0.1,1,3,0.1,0,0.1,0.3,0.055,0.1,0.7,0.1,3,|
0,50,1,10,0,50,0.1,10,0,30,0.1,10,0,60,0,30,10,10,&
0.1,0,0.1,0.5,0.1,1,3,0.1,0.06,0.1,0.6,0.1,0.1,3,0.1,6,|
0,10,0.1,30,0.1,60,0,30,0.1,50,0.01,30,0.01,10,0,6,1.1,20,0.1,30,&
0.1,0.1,0.1,0.6,0.1,1,3,0.1,0,0.1,0.6,0,2,0.1,4,0.1,6,|
0,7,0.1,50,0.1,30,0,20,0.1,6,0.01,10,0.01,6,0,5,10,10,&

0,2,1,0.5,0,0.6,0,1,1,3,0.1,0.1,0.1,0.5,0.1,0.6,0.1,1,|
0.1,6,0.1,30,0.1,20,0.1,10,0.001,6,0.001,5,0.11,3,0.1,0,0.1,5,&
0.1,0.06,0,0.6,0,1,1,3,0,0.6,0,1,0.1,3,0.1,0.1,0,0.5,0,0.6,1,1,0,0.5,0,0.6,0.1,1,|
0.1,6,0.1,20,0.01,20,0.01,10,0.1,6,10,5,&
0.1,0.02,0,0.6,0,1,1,2,0,0.6,0,1,0.1,2,0.1,0.05,0,1,0,2,1,5,0,1,0,2,0.1,5,|
0.1,0.6,0.1,3,0.1,2,0.1,1,0.001,0.6,0.001,0.5,0.11,0.3,0.1,0,0.1,0.5,&
0.1,0,0,10,0.1,30,0.1,0,0,10,0.1,30,0.1,0,0,3,0,5,0.1,6,0,3,0,5,0.1,6,0.1,0,|
0.1,0.6,0.1,2,0.1,2,0.01,1,0.01,0.6,0.01,0.5,0.11,0.6,1,0,&
0.1,0,0,20,0,6,0.1,4,0,20,0,6,1,4,1,0,0,30,1,60,|
0.1,60,0.1,300,0.1,200,0.1,100,0.001,60,0.001,50,0.11,30,0.1,0,0.1,50,&
0,0.1,10,0.5,0,0.1,10,0.3,|
0.1,60,0.1,200,0.01,200,0.01,100,0.1,60,0.01,50,0.11,60,0,300,1,600,&
0,0.06,10,0.4,0,0.1,10,0.5

《斗牛士之歌》(比才 作曲, 摘自但昭义, 王雁的《新编钢琴入门与进阶》)

do=F,s=120,0,5,1,3,0,3,0.11,6,0.01,5,0,3,1,1,0,3,1,1 & 0,0.1,1,0.5,0,0.05,1,0.5,0,0.1,1,0.5,0,0.05,1,0.5, |
0,1,0.01,5,0.1,3,0.01,2,0,1,0.11,3,0,1,0,3,0.01,4,0,1,1,3 & 0,0.1,1,0.5,0,0.05,1,0.5,0,0.1,1,0.5,0,0.05,1,0.5,|
0,4,1,0.7,0,2,0.11,0.7,0.01,5,0,3,1,1,0,3,1,1,& 0,0.5,1,0.2,0,0.5,1,0.05,0,0.5,1,0.1,1,0.07,|
0,1,1,0.5,0,0.45,0.11,0.6,0.01,2,10,0.5,& 0,0.3,1,0.06,0,0.2,1,0.02,0,0.07,1,0.05,0,0.07,1,0.05,|
10.1,2,0.1,6,0.1,5,0.1,4,& 0,0.4,1,0.6,0,0.4,1,0.6,0,0.4,1,0.6,0,0.4,1,0.6,|
0.001,4,0.011,3,0.1,2,0.1,3,0.1,4,1,3,1,3,& 0,0.1,1,0.6,0,0.1,1,0.6,0,0.1,1,0.6,0,0.1,1,0.6,|
1,0.7,0.11,3,0.01,3,1,3,0.11,2.5,0.01,4.5,& 0,0.07,0,0.3,1,0.5, 0,0.07,0,0.3,1,0.5,0,0.07,0,0.45,1,0.6,0,0.07,0,0.45,1,0.6,|
0,3,1000.1,7,0.03,6,0.03,7,0.03,6,0.1,5.5,0.1,6,0.1,2,0.1,3,1,4,&
0,0.3,0,0.55,1,0.7,1,0.07,1,0.055,1,0.03,1,0.035,0,0.2,0,0.4,10,0.6,0,0.2,0,0.4,1,0.6. |
0.1,0,0.1,3,0.1,1,0.1,6,10,5,& 1,0.05,0,0.1,0,0.3,1.1,0.5,0.1,0.3,0.1,0.1,0.1,0.6,|
0.1,0,0.1,1,0.1,0.5,0.1,4,1,3,0,2,1,0.7,1,1,0,3,0.11,10,0,3,0.01,10,0,3,1,10,&
100,0.5,0,0.4,1,0.05,0,0.3,1,0.1,0,0.05,0.11,0.01,0,0.05,0.01,0.01,0,0.05,1,0.01