时间序列分析引论作业

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1.1.Larain 时间序列图

```
library(TSA)
```

```
## Warning: 程辑包'TSA'是用R版本4.3.3 来建造的
```

```
##
## 载入程辑包：'TSA'
```

```
## The following objects are masked from 'package:stats':
##
##     acf, arima
```

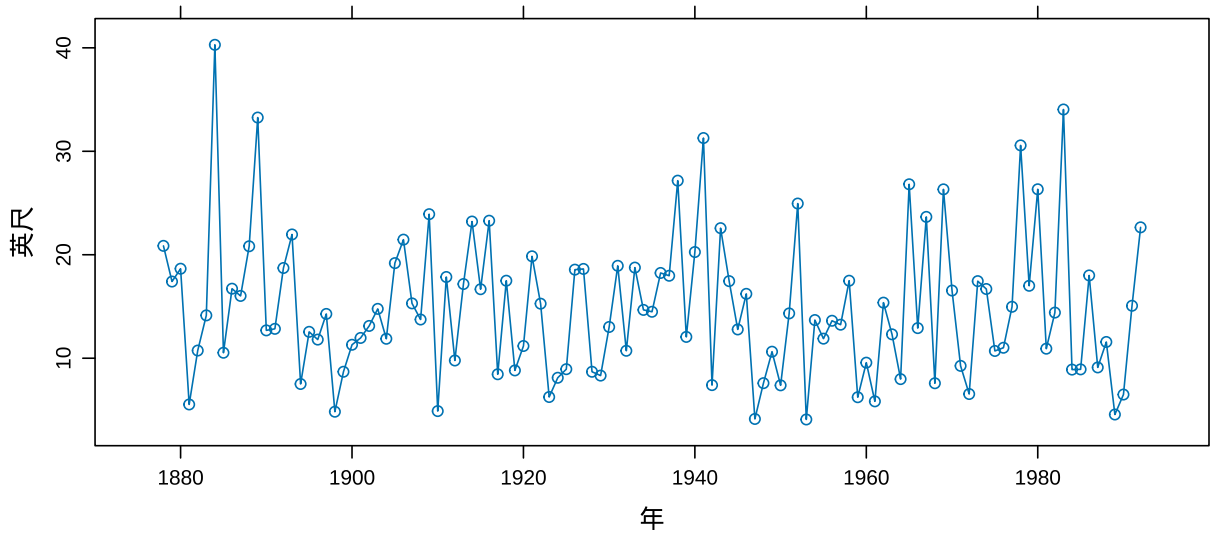
```
## The following object is masked from 'package:utils':
##
##     tar
```

```
library(latticeExtra)
```

```
## Warning: 程辑包'latticeExtra'是用R版本4.3.3 来建造的
```

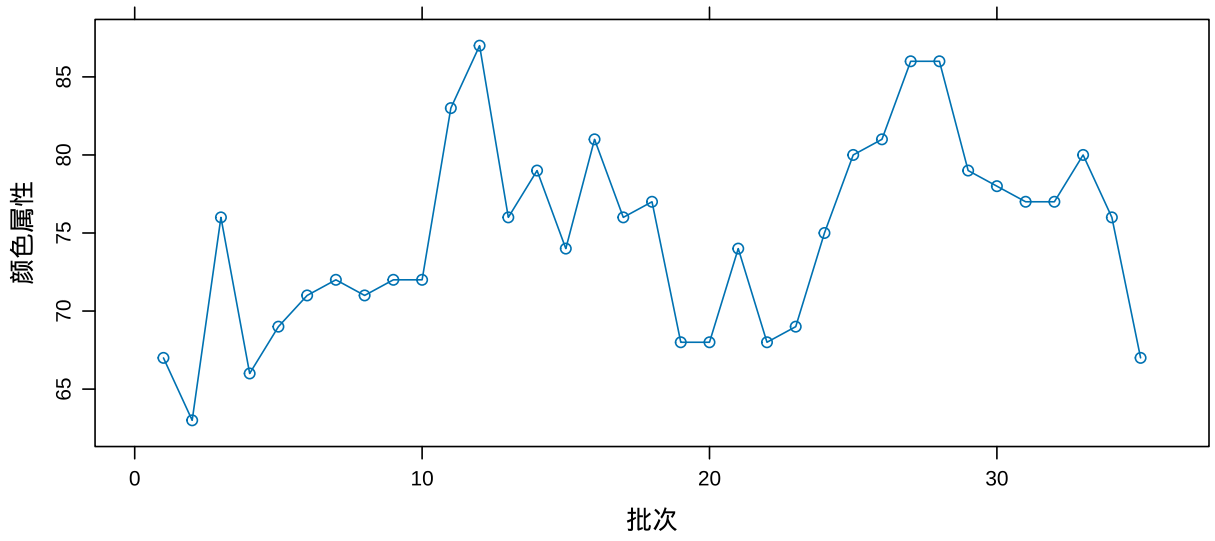
```
## 载入需要的程辑包：lattice
```

```
data(larain, package = "TSA")
xyplot(larain, ylab = " 英尺", xlab = " 年", type = "o")
```



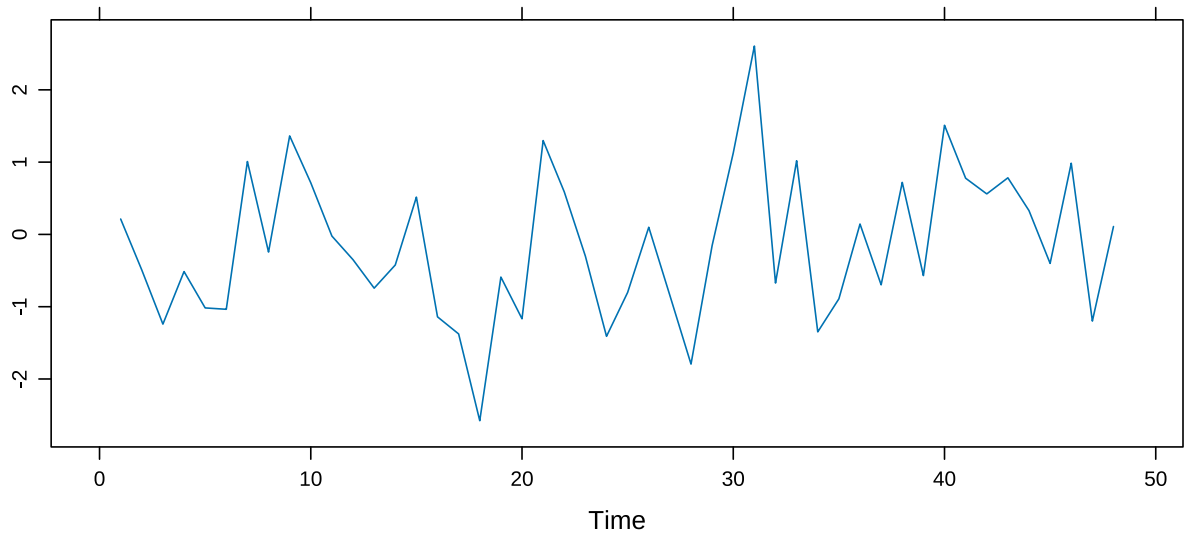
1.2.Color 时间序列图

```
data(color)
xyplot(color, ylab = " 颜色属性", xlab = " 批次", type = "o")
```

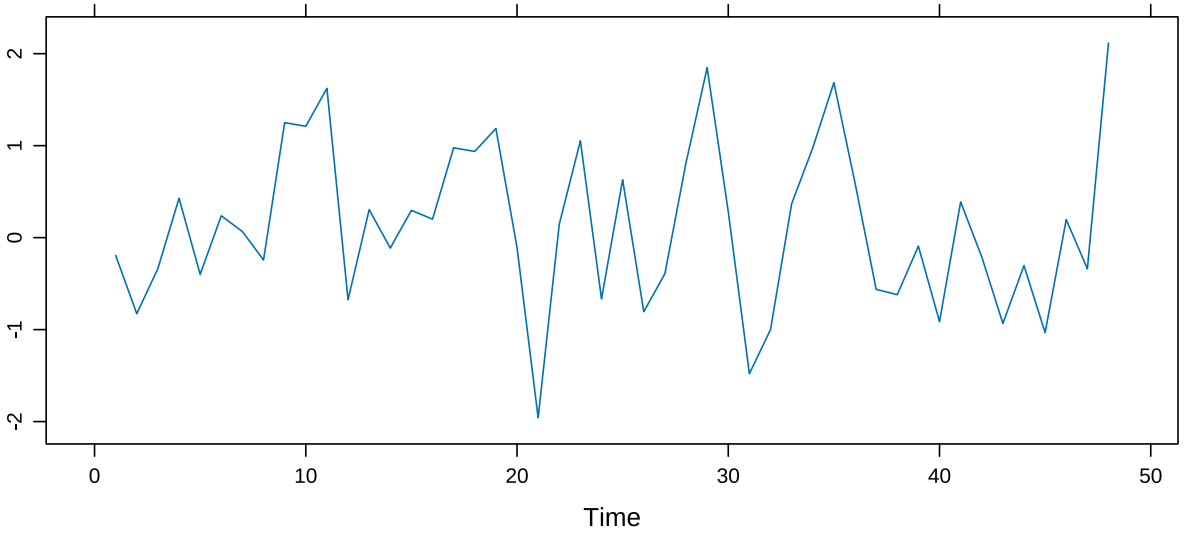


1.3. 随机独立正态分布

```
xyplot(as.ts(rnorm(48)))
```



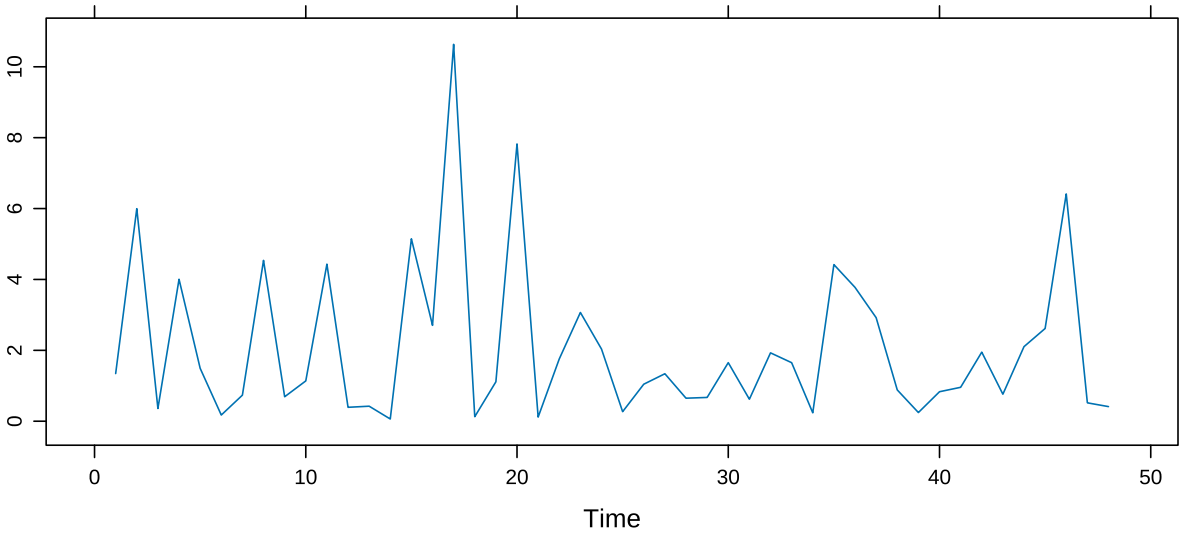

```
xyplot(as.ts(rnorm(48)))
```



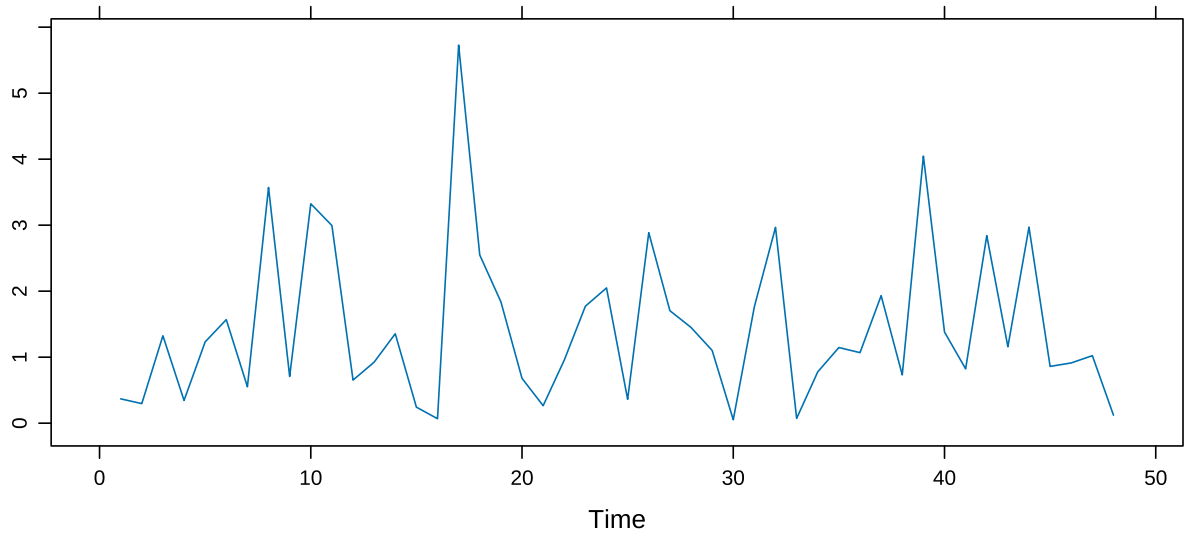
基本随机，看不出什么模式。

1.4. 随机 γ^2 分布时间序列

```
xyplot(as.ts(rchisq(48, 2)))
```



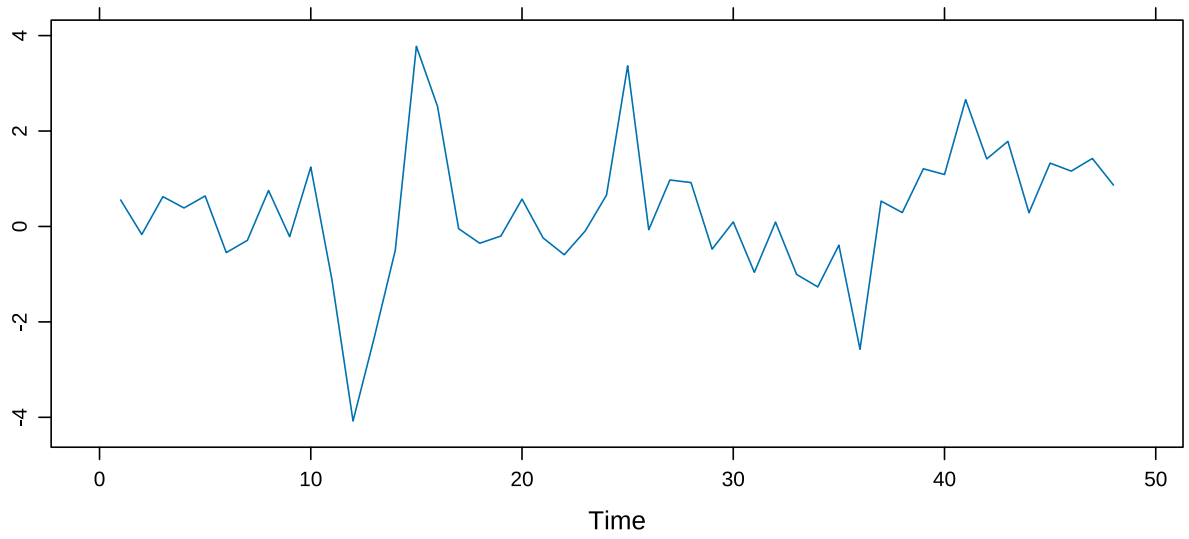

```
xyplot(as.ts(rchisq(48, 2)))
```



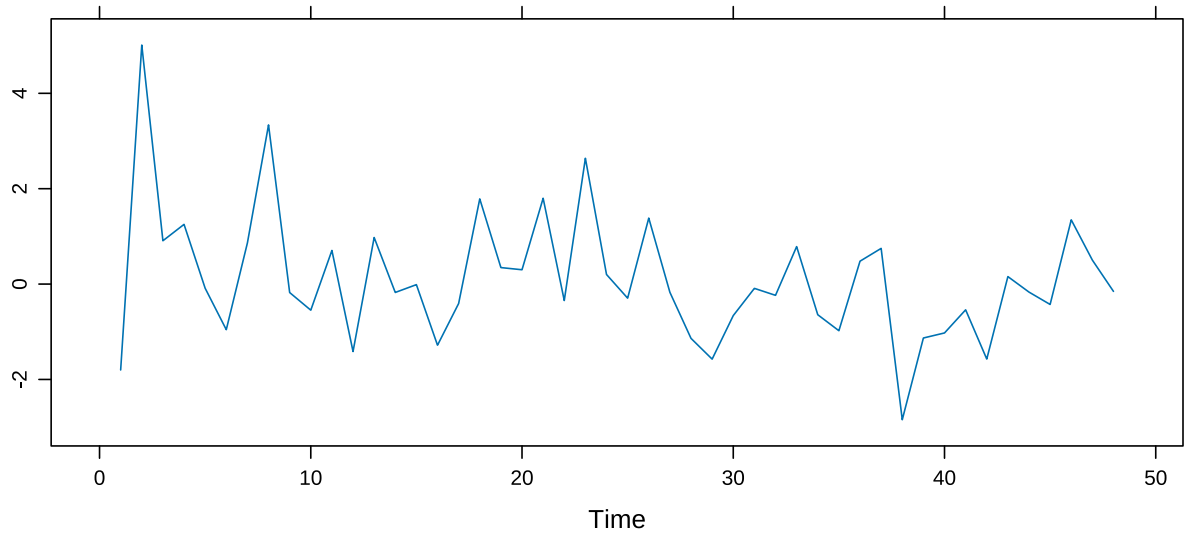
结果随机，同时符合非正态性。

1.5. 随机值 $t(5)$ 分布

```
xyplot(as.ts(rt(48, 5)))
```




```
xyplot(as.ts(rt(48, 5)))
```



结果随机，同时符合非正态性。

1.6. 迪比克市气温序列（月度标识）

```
data(tempdub)
xyplot(tempdub ~ time(tempdub), type = 'l', ylab = '温度', xlab = '年份',
       panel = function(x, y, ...) {
           panel.xyplot(x, y, ...)
           panel.points(x, y, pch = as.vector(season(tempdub)))
       })
```