Оценка прогнозов притока воды в озеро Байкал

Всеволод Морейдо

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**Байкал** *(бур. Байгал далай)* — [озеро](https://ru.wikipedia.org/wiki/%D0%91%D0%B0%D0%B9%D0%BA%D0%B0%D0%BB) тектонического происхождения в южной части Восточной Сибири, самое глубокое озеро на планете, крупнейший природный резервуар пресной воды и самое большое по площади пресноводное озеро на континенте.

Озеро и прибрежные территории отличаются уникальным разнообразием флоры и фауны, бо́льшая часть видов животных эндемична.

# Прогнозы притока

* прогнозы месячного разрешения
* прогнозы весеннего половодья
* прогнозы летне-осенних паводков
  + и максимальных уровней воды

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## 644 2012 -200 -270.0 12  
## 645 2013 -300 -316.0 12  
## 646 2014 -500 -500.0 12  
## 647 2015 -400 -300.0 12  
## 648 2016 NA NA 12

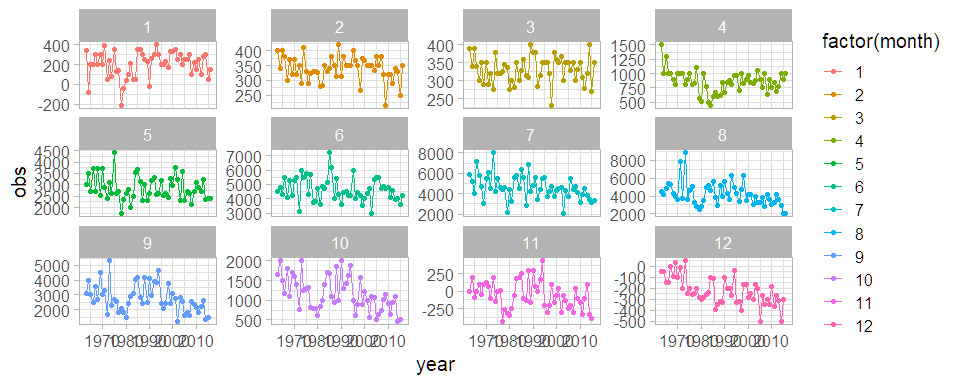
# knitr::kable(summary(prog\_df))

Приток к Байкалу выглядит так:

library(ggplot2)  
ggplot(prog\_df, aes(x=year, y=obs, col=factor(month))) + geom\_line() + geom\_point() + facet\_wrap(month~., scales = 'free\_y') +   
 theme\_light(base\_size = 15)

## Warning: Removed 4 rows containing missing values or values outside the scale range  
## (`geom\_line()`).

## Warning: Removed 4 rows containing missing values or values outside the scale range  
## (`geom\_point()`).



# Оценка ошибок прогноза

Расчет систематической ошибки прогноза производится по формуле

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где - прогнозный расход воды.

1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016

Среднее значение притока воды в озеро Байкал составляет 1808.34 м3/c.