

# Cálculo da PLD

## Análise dos dados da entrada

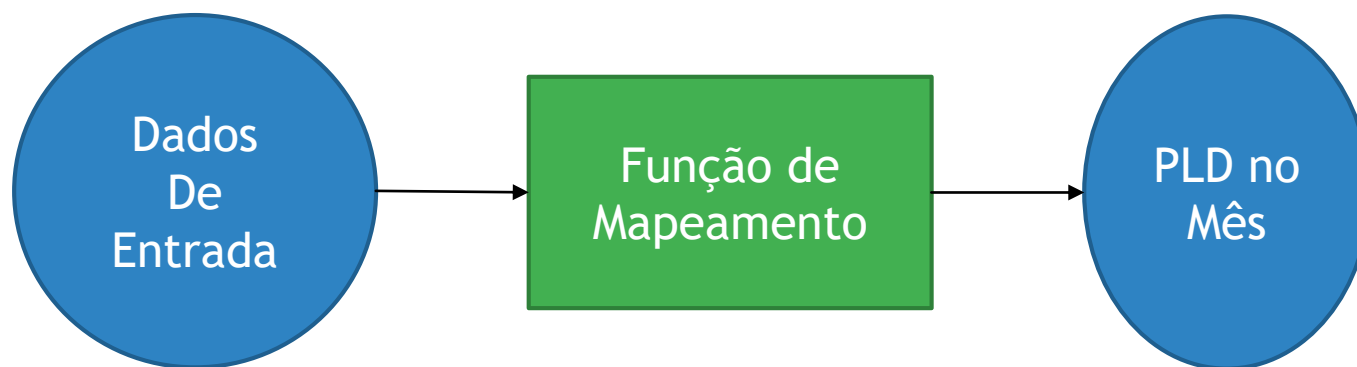
Nome: Felipe Claudio da Silva Santos

Orientador: Luiz Pereira Calôba

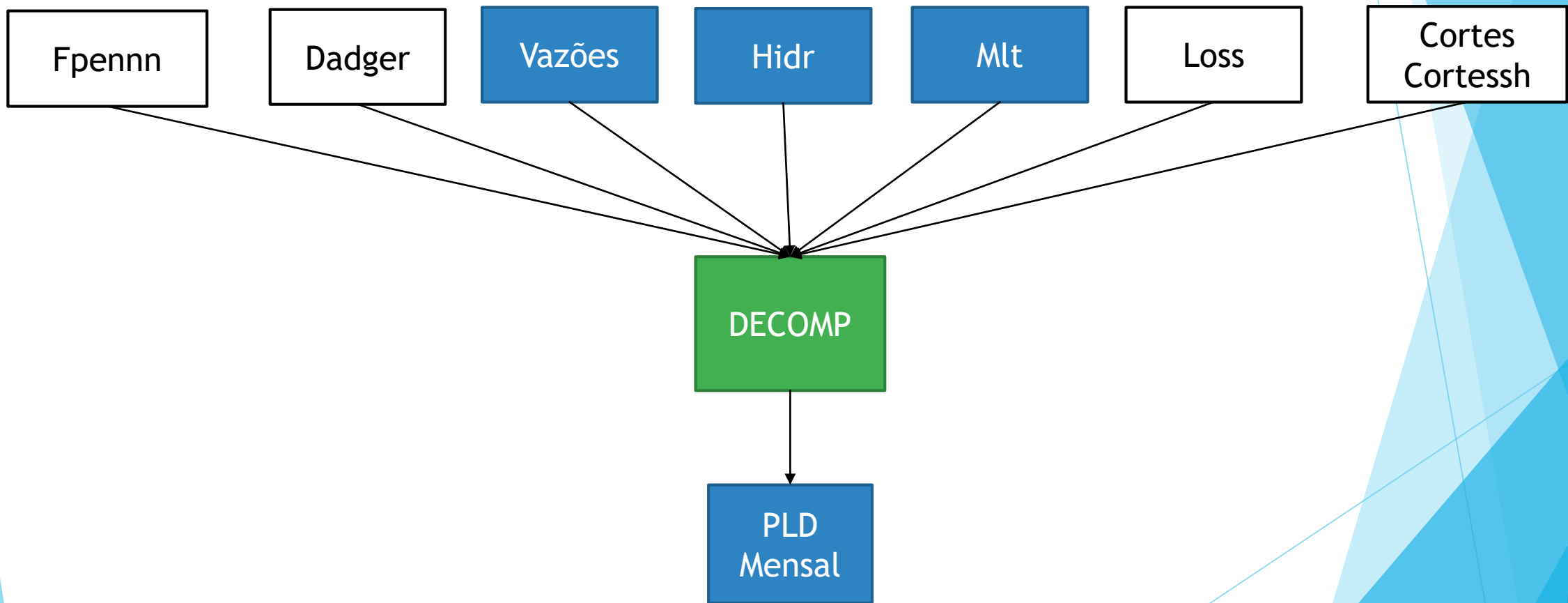
Co-orientador: Natanael Nunes de Moura Junior

# Objetivo

- ▶ Obter a função de mapeamento utilizada para estimar o PLD do mês atual a partir dos dados fornecidos publicamente.

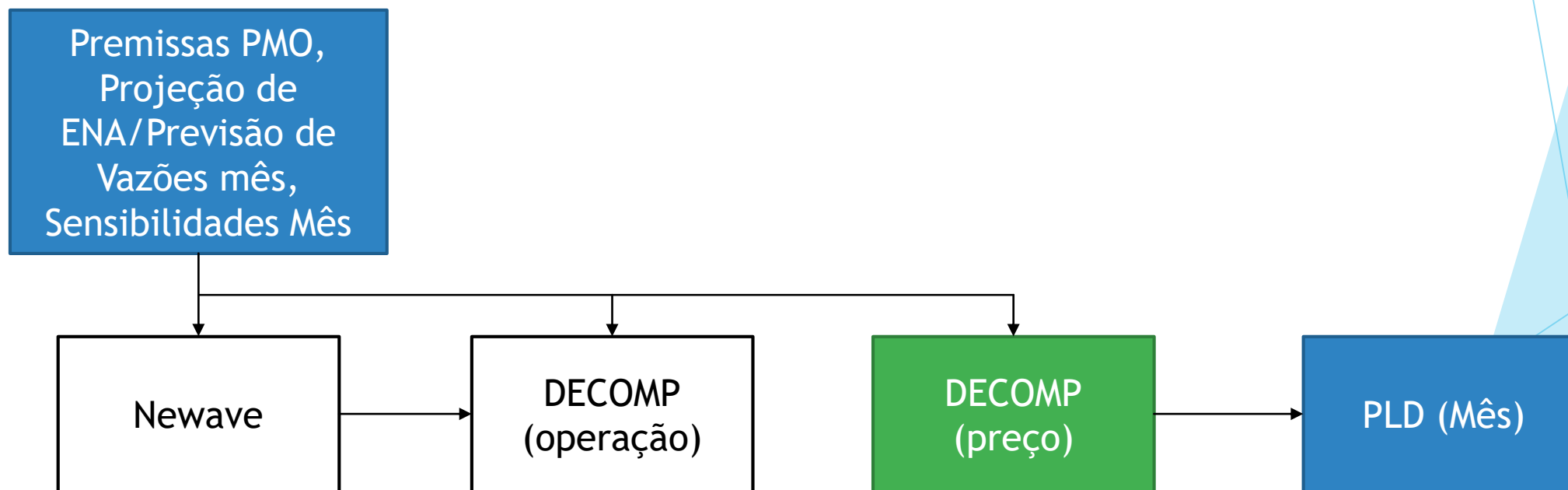


# Arquivos de entrada



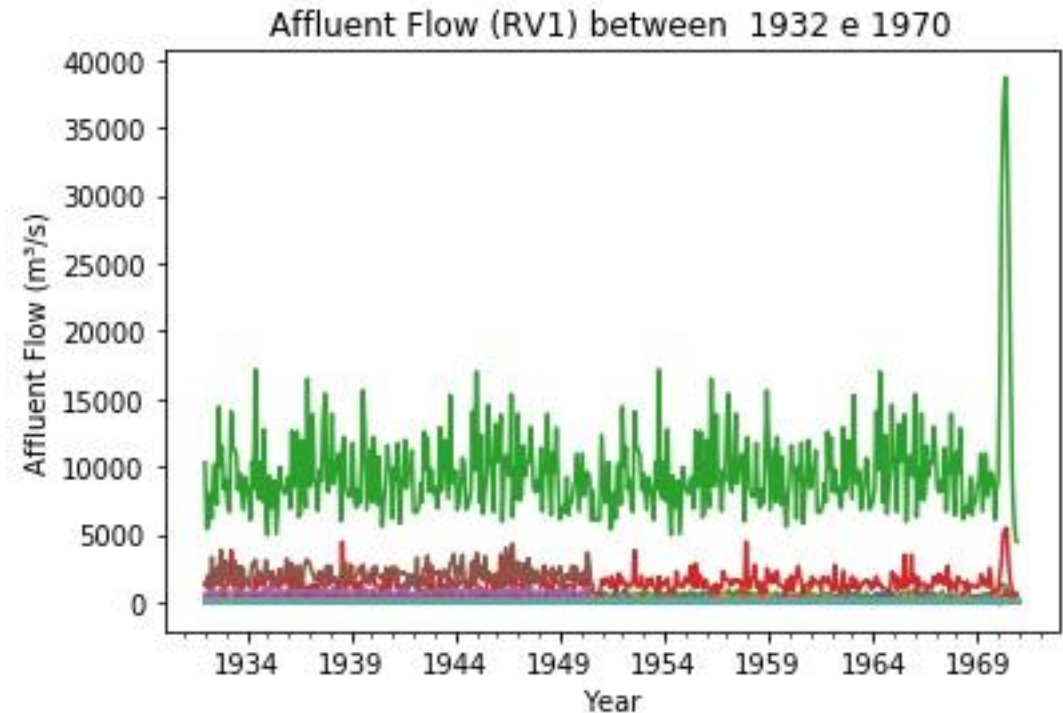
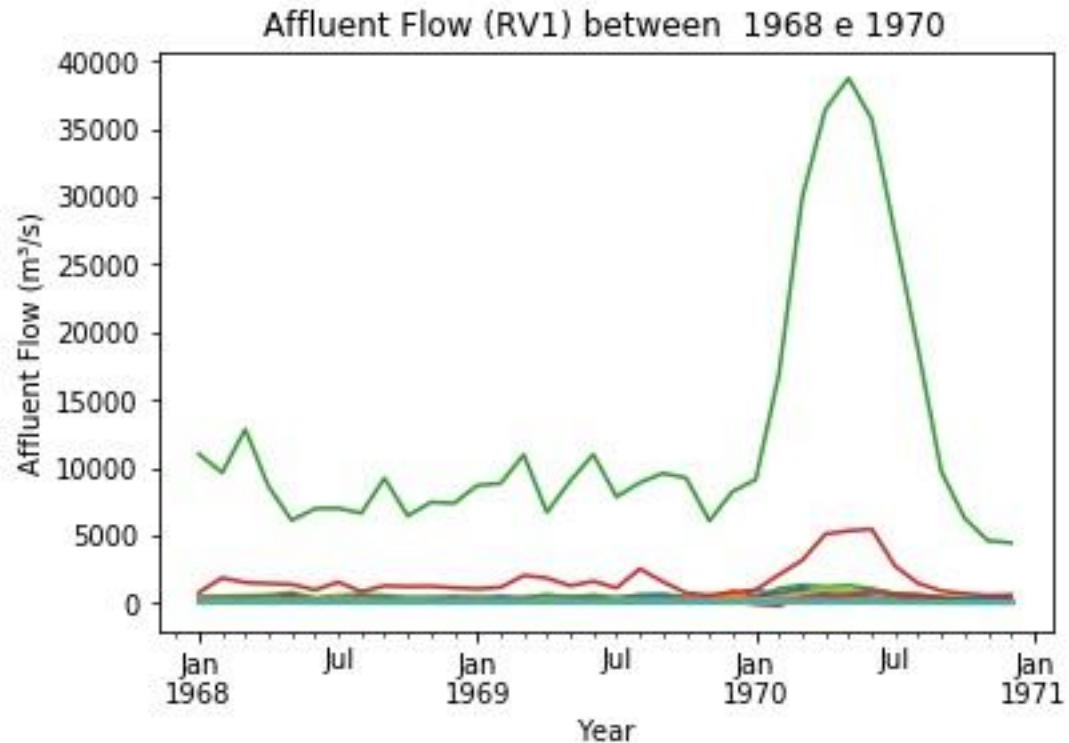
# Dados de Entrada

- ▶ Serão utilizadas as entradas do modelo decomp preço para o mês atual:



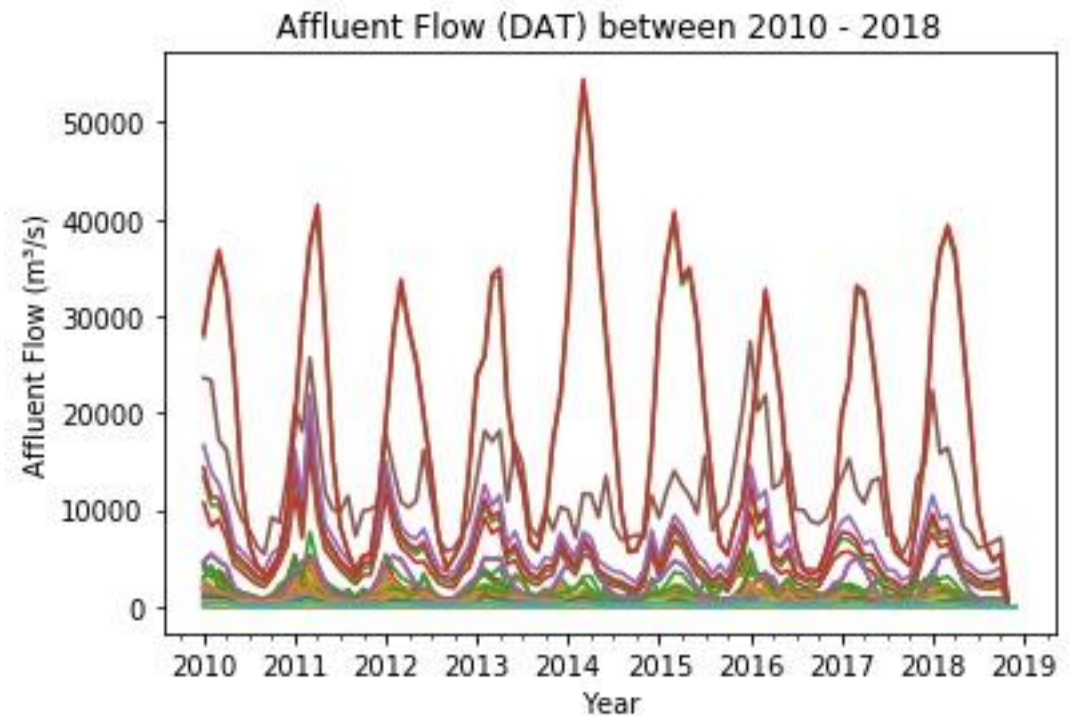
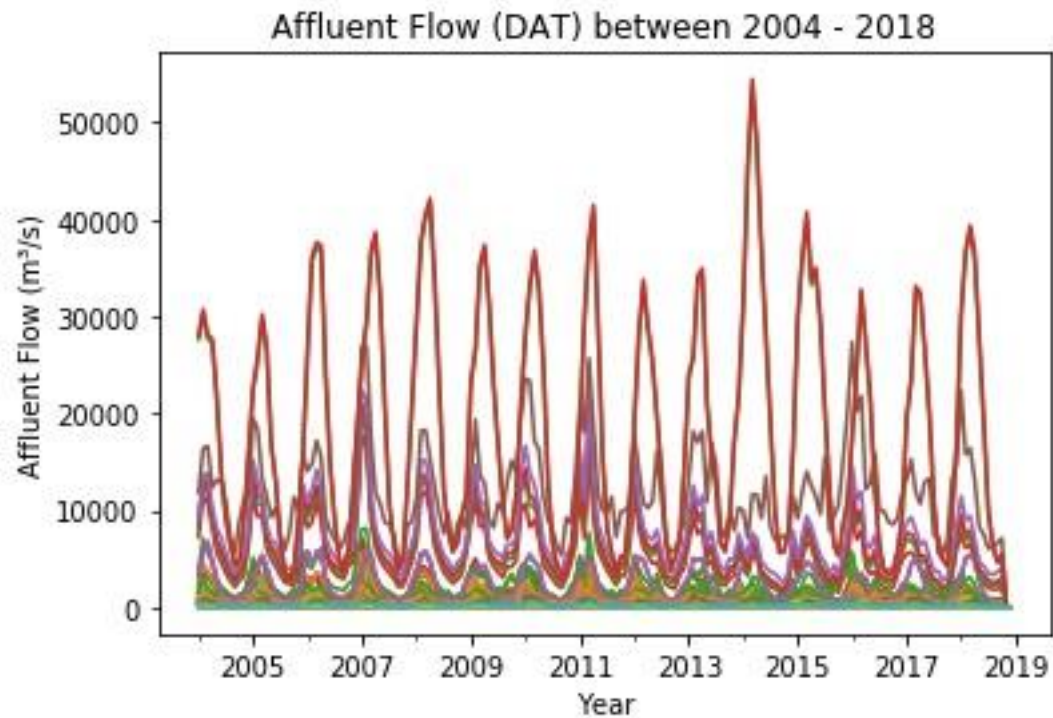
# Séries Temporais

## ► Vazões.RV1



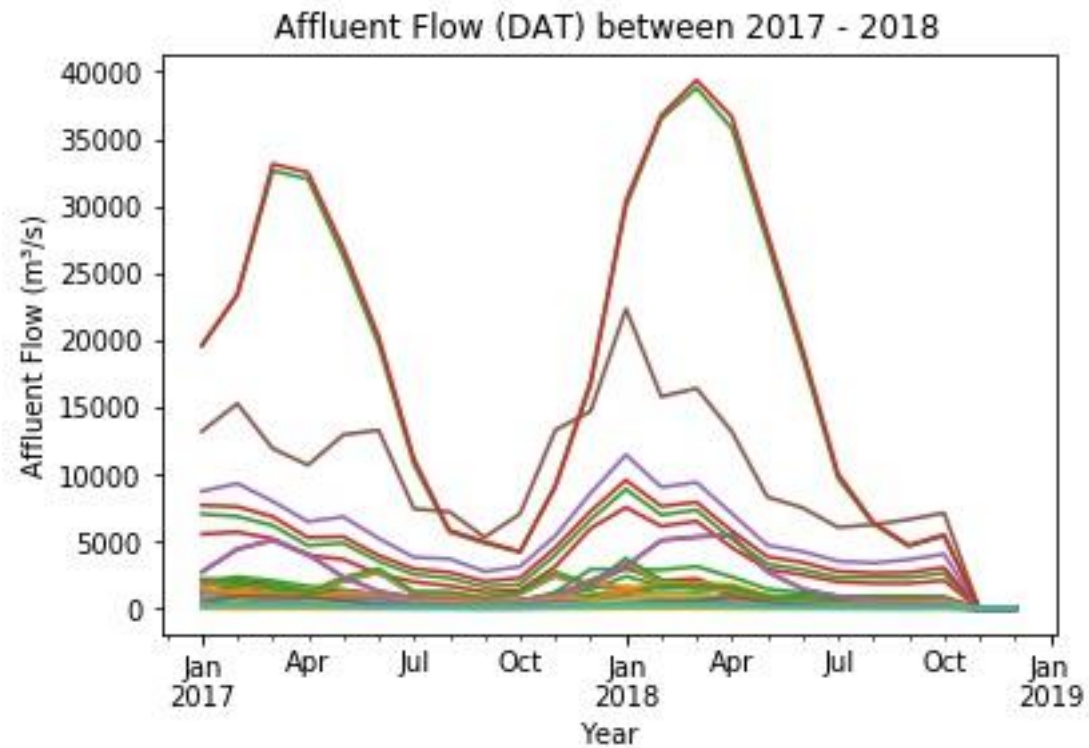
# Séries Temporais

## ► Vazões.DAT



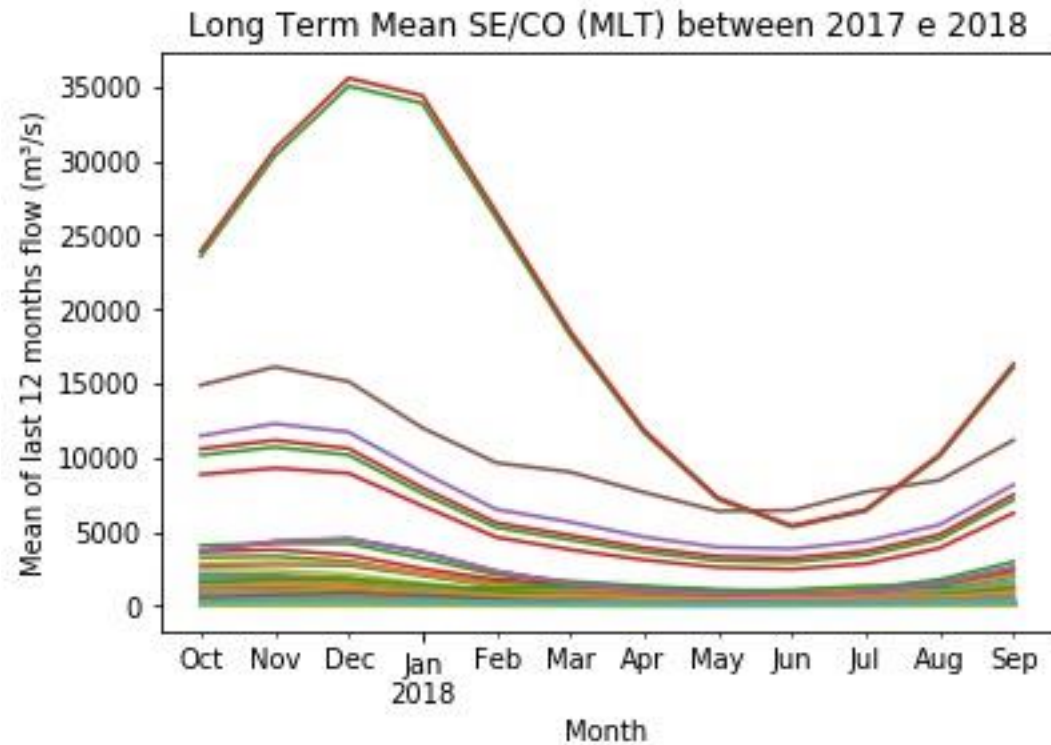
# Séries Temporais

## ► Vazões.DAT



# Séries Temporais

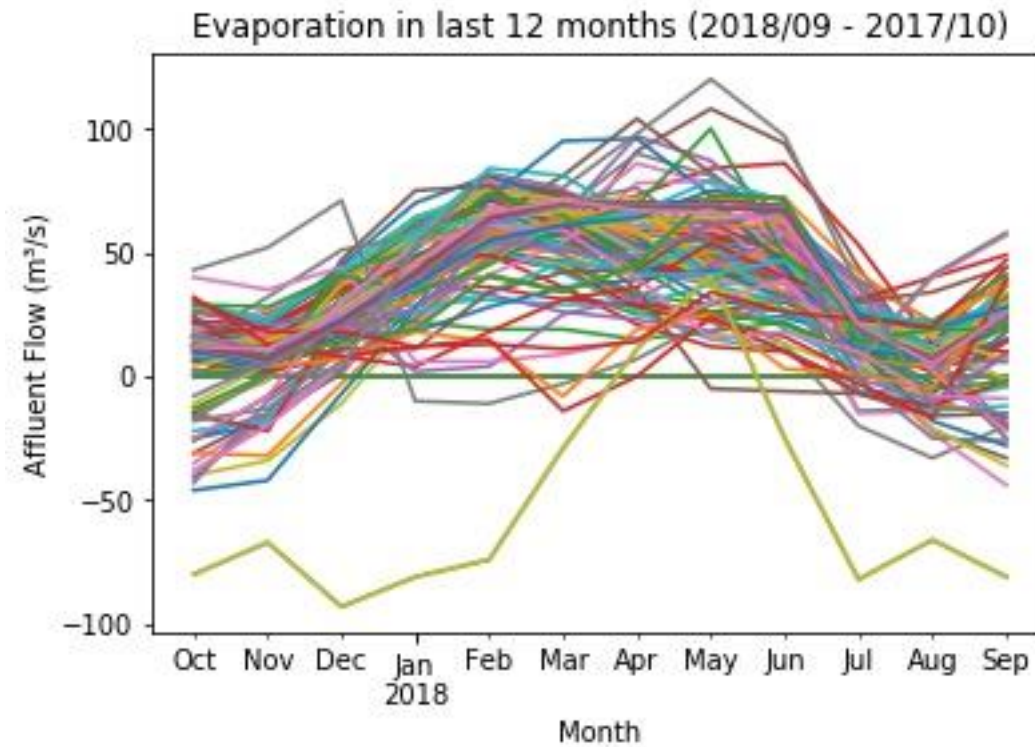
## ► Média de Longo Termo





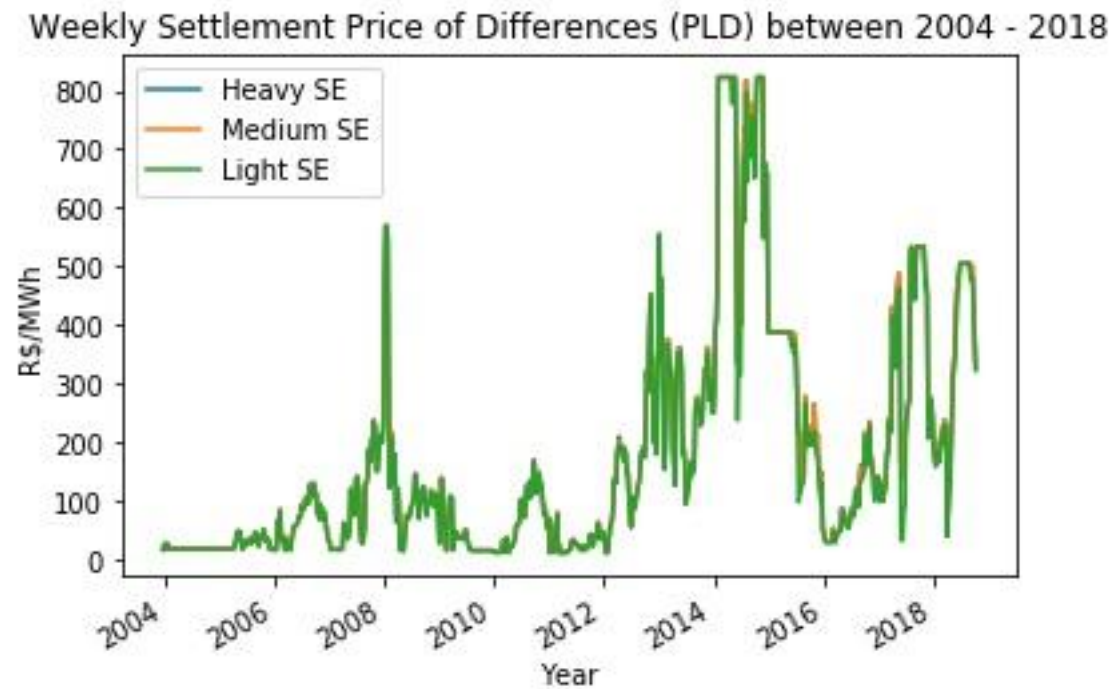
# Séries Temporais

## ► Evaporação



# Séries Temporais

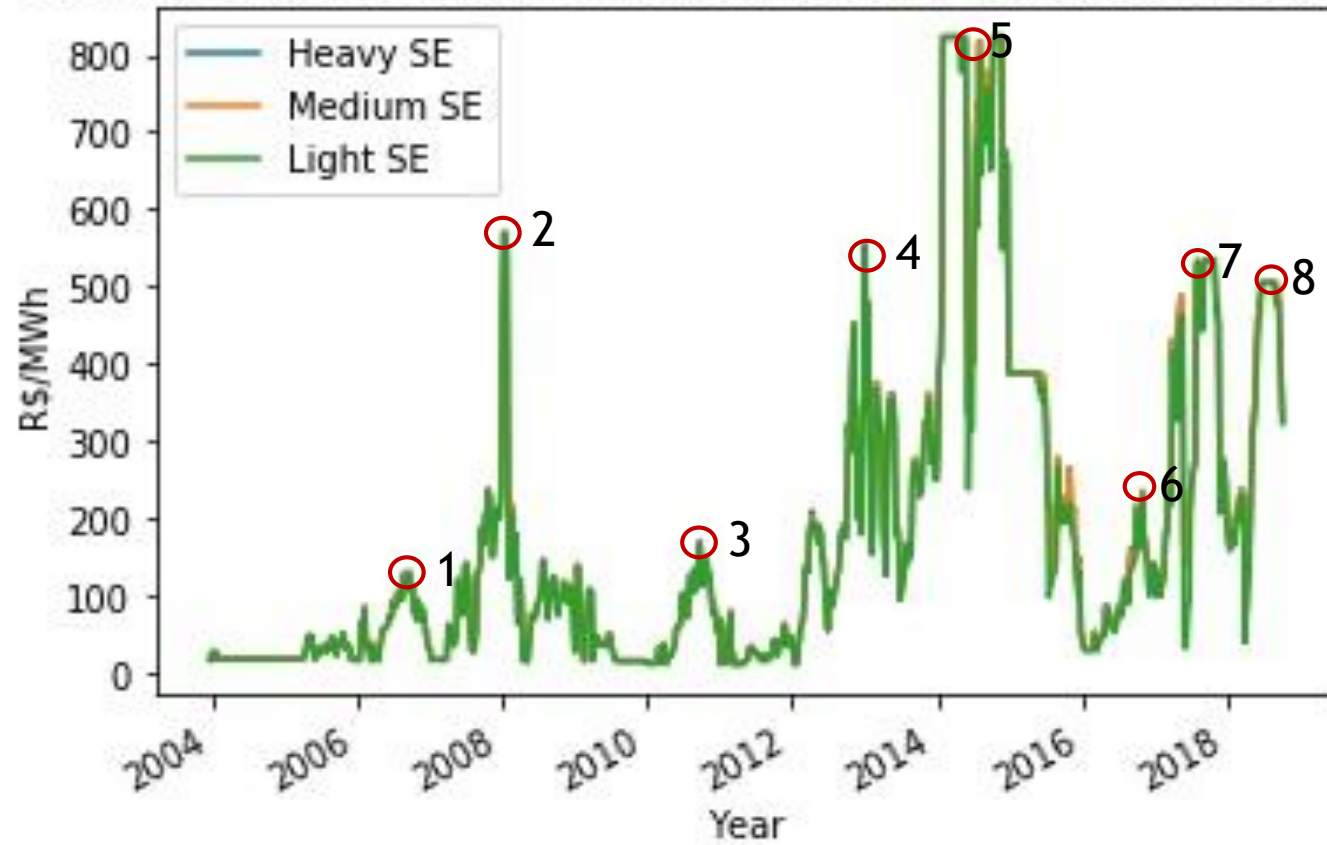
## ► PLD Semanal



# Séries Temporaires

## ► PLD Mensal

Weekly Settlement Price of Differences (PLD) between 2004 - 2018



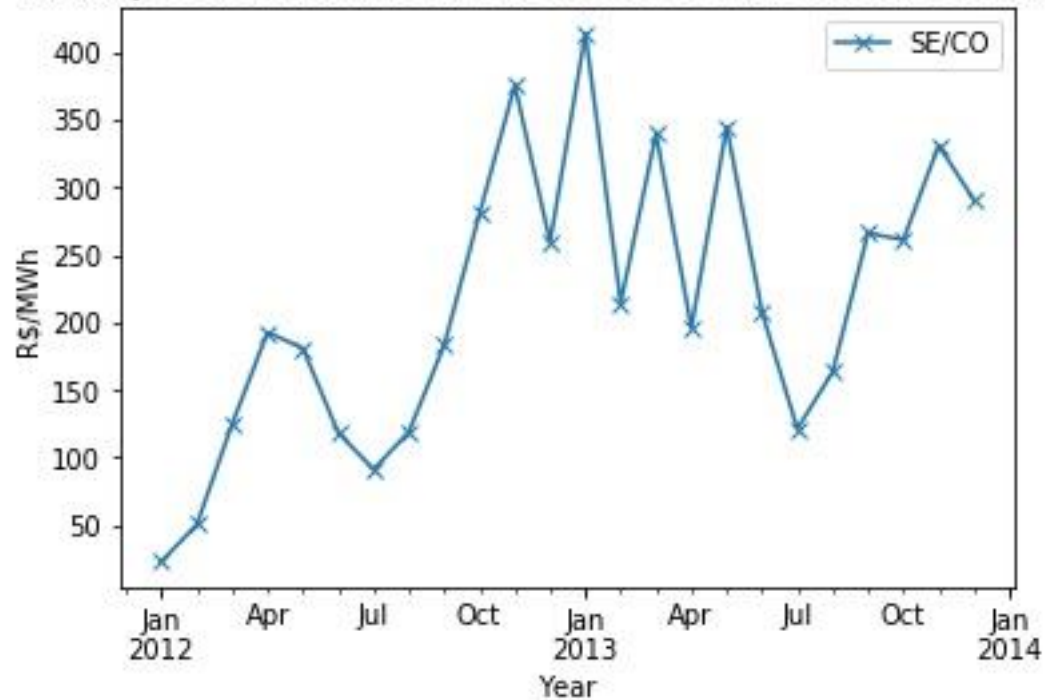
# Considerações sobre os eventos

- ▶ Nos anos de eleições são ligadas as termoeletricas para que não ocorra o risco de apagão: 1, 4, 5 ,8
- ▶ Em 2008 estourou uma grande crise financeira mundial: 2
- ▶ Em 2012 Dilma resolve renovar concessões das hidrelétrica e CESP, CEMIG e CEPEL não aceitam: 4, 5
- ▶ Em 2012 o nordeste passa pela pior seca das últimas 3 décadas: 4
- ▶ Sudeste passa pela pior seca dos últimos 100 anos entre 2014 e 2015: 4, 5
- ▶ Entre 2012 e 2017 o período de chuvas foi irregular. Sudeste, Centro-Oeste e Nordeste atingem níveis críticos dos reservatório em setembro de 2017: 4, 5, 6, 7

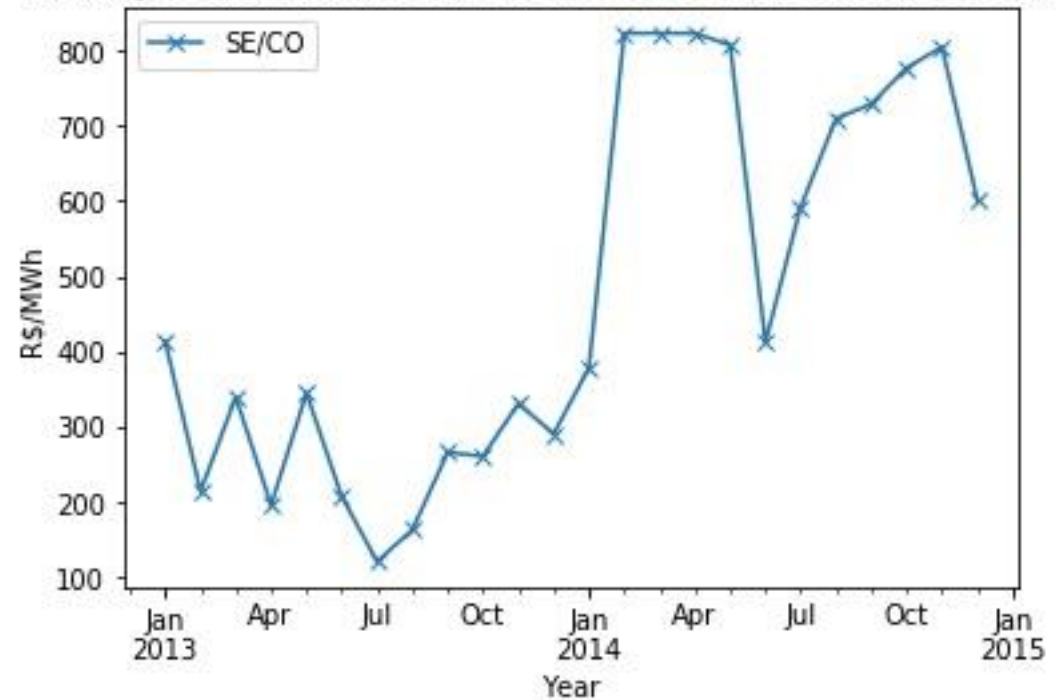
# Séries Temporaires

## ► PLD Mensal

Monthly Settlement Price of Differences (PLD) between 2012 - 2013



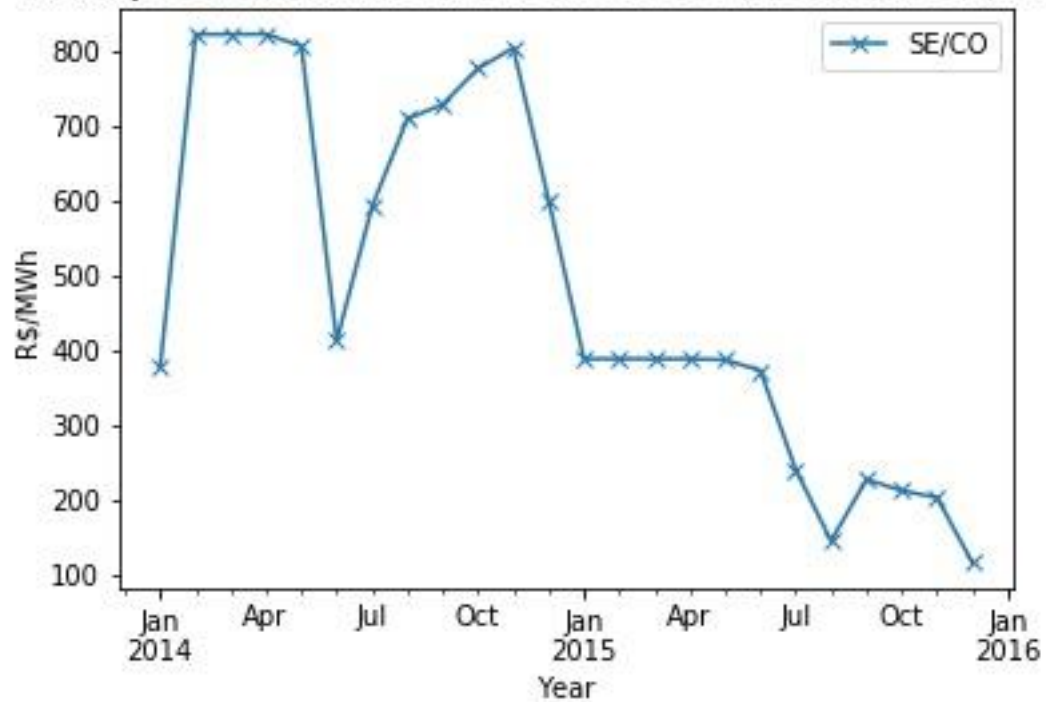
Monthly Settlement Price of Differences (PLD) between 2013 - 2014



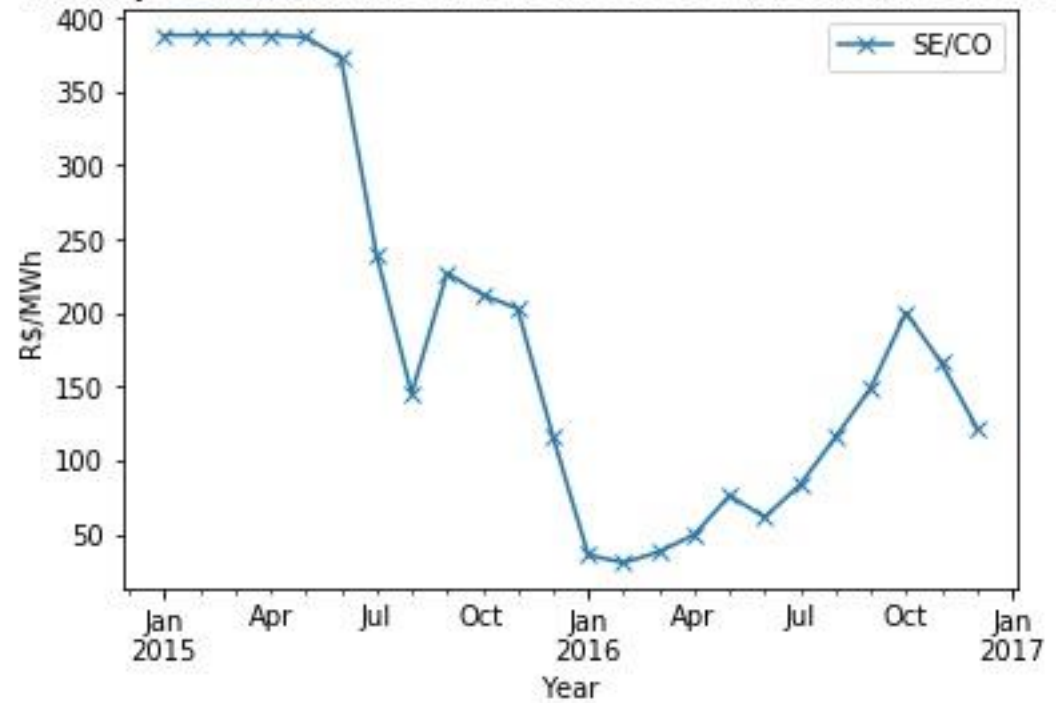
# Séries Temporaires

## ► PLD Mensal

Monthly Settlement Price of Differences (PLD) between 2014 - 2015



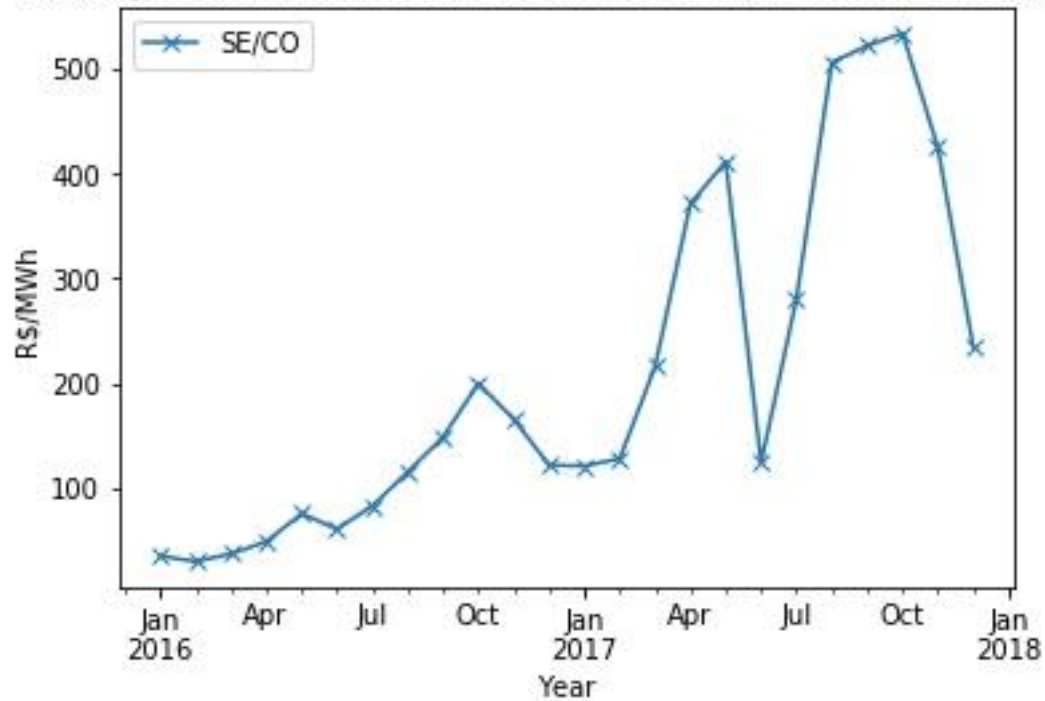
Monthly Settlement Price of Differences (PLD) between 2015 - 2016



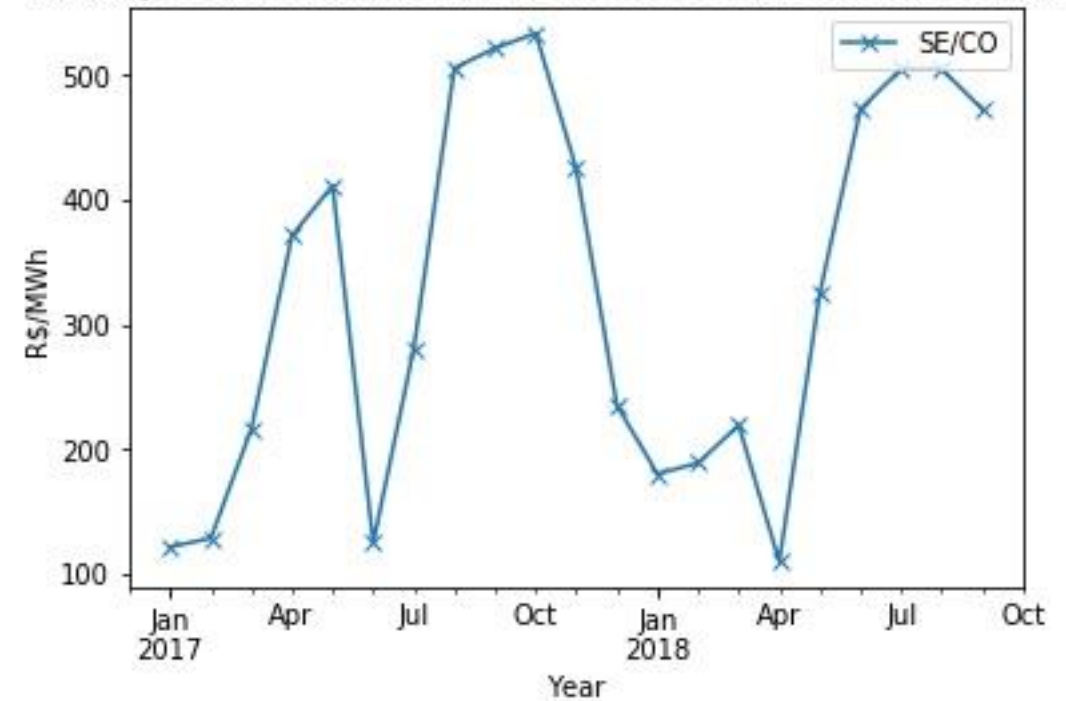
# Séries Temporaires

## ► PLD Mensal

Monthly Settlement Price of Differences (PLD) between 2016 - 2017

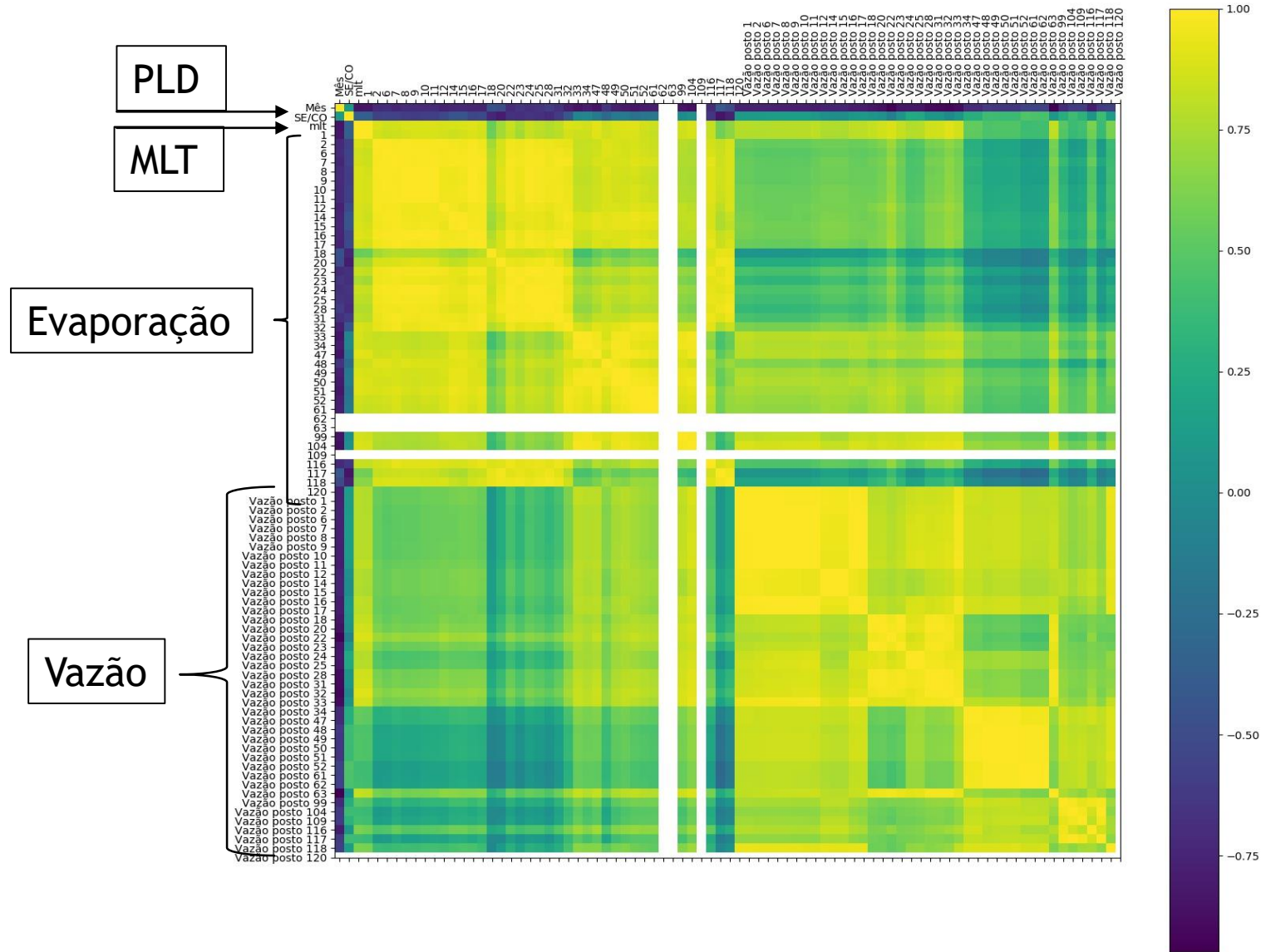


Monthly Settlement Price of Differences (PLD) between 2017 - 2018



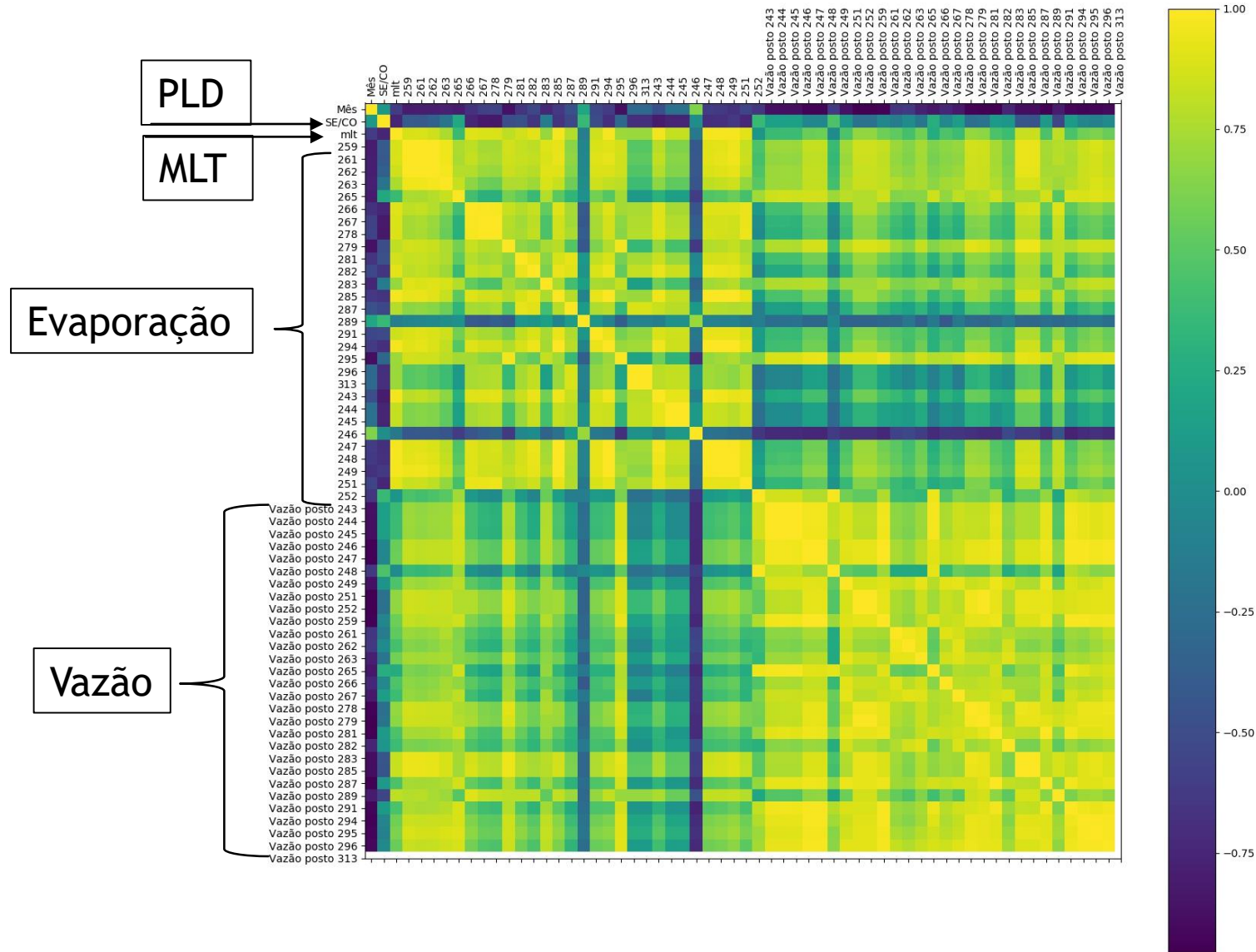


# Matriz de Correlação (últimos 12 meses)

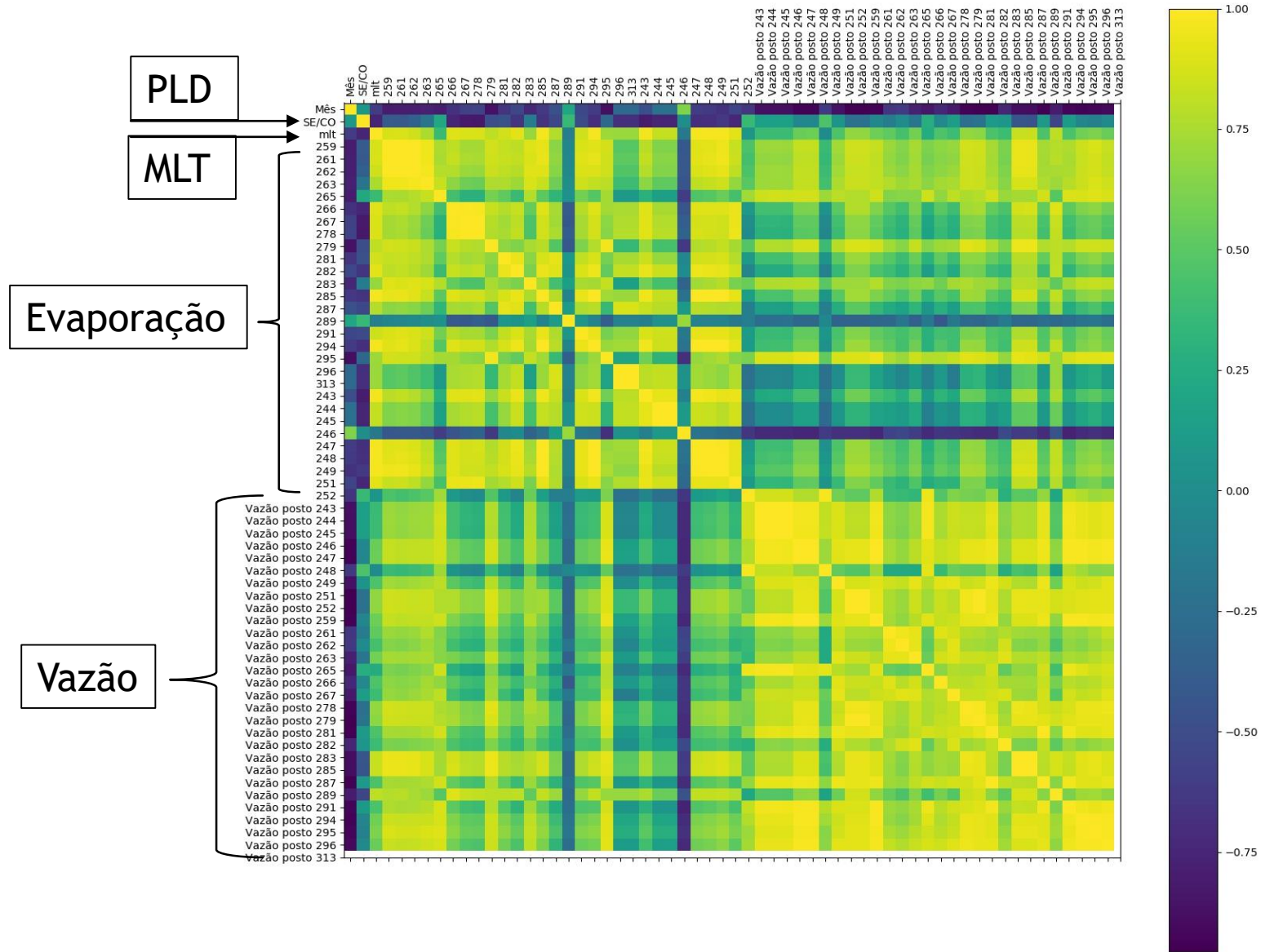




# Matriz de Correlação (últimos 12 meses)

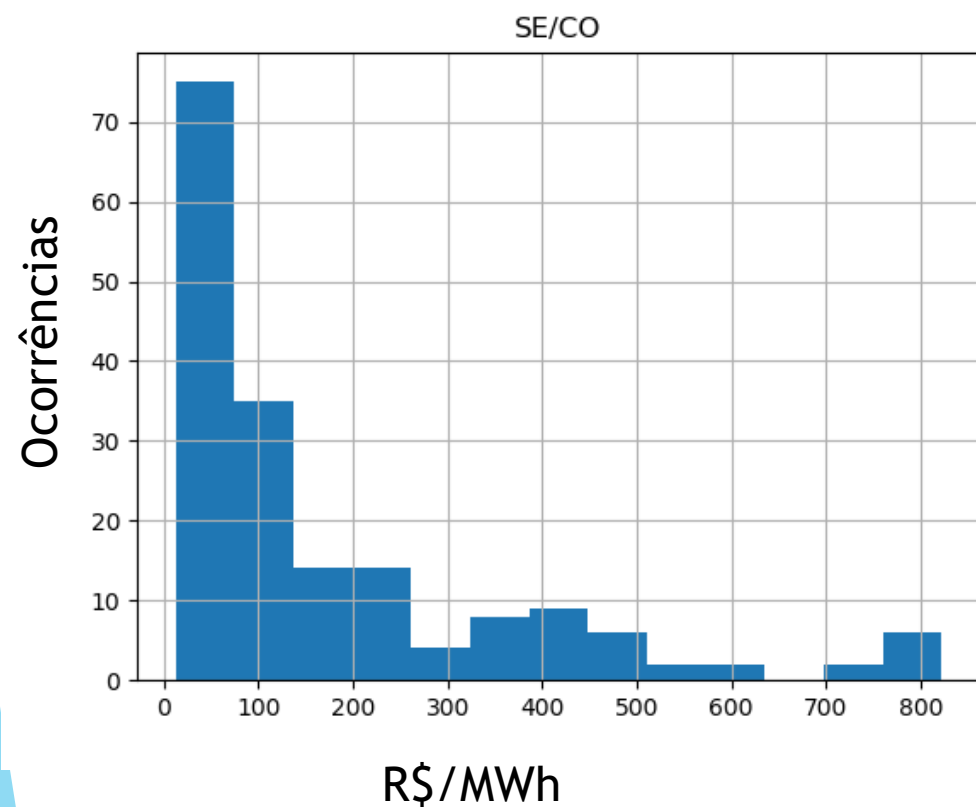


# Matriz de Correlação (últimos 12 meses)

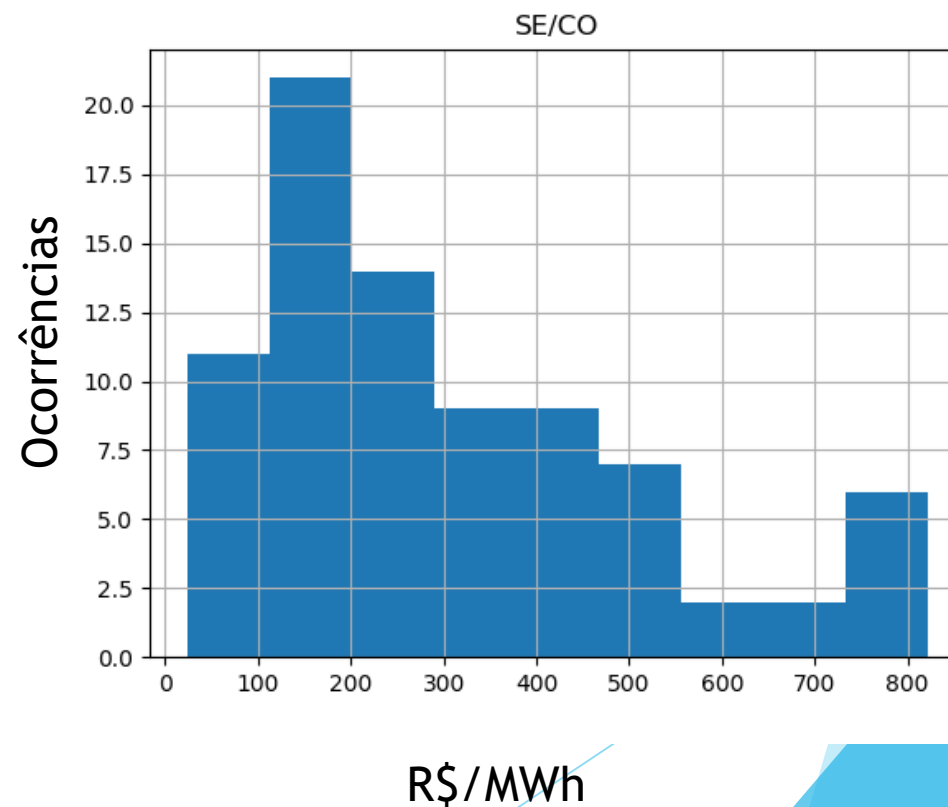


# Histograma

## ► PLD Mensal (2004-2018)



## ► PLD Mensal (2012-2018)



# Trabalhos Futuros

- ▶ Decompor a PLD em séries temporais
- ▶ Conseguir licença de estudante para o NEWAVE e o DECOMP