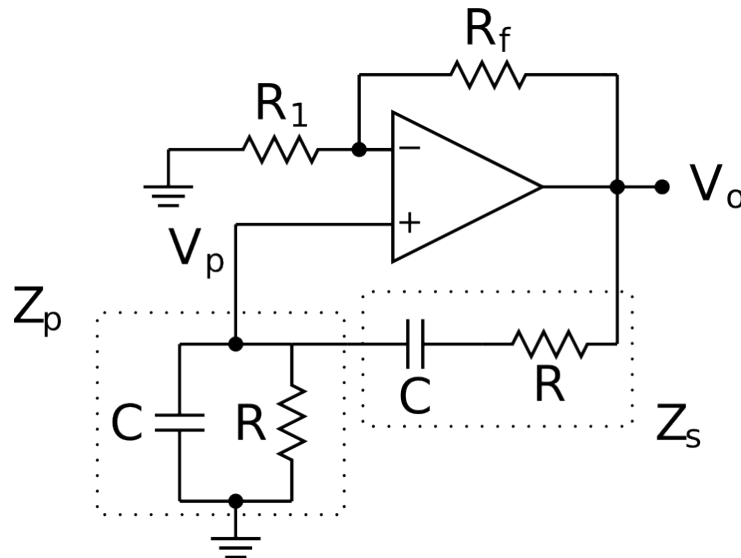


# Electronics II

## Wien Oscillator

P. Stallinga



The above circuit is a Wien Oscillator. It consists of an ideal opamp with negative feedback composed of  $R_1$  and  $R_2$ , and a branch with positive feedback, composed of two RC networks.

- What is the gain  $A$  of the circuit composed of the opamp and the two resistors  $R_1$  and  $R_2$ ? Consider the input at the  $+$  terminal.
- Analyze the circuit and determine the Barkhausen Criterion for oscillation.
- Give values for the components to get a pure sinusoidal oscillation at 10 kHz.