

# First Exercise

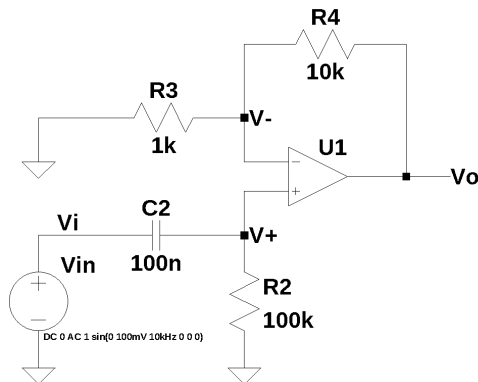
Fundamentals Of Electronics - a.a. 2018-2019 - University of Padua (Italy)

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## 1 Audio amplifier

### 1.1 Voltage gain and frequency domain - Ideal op. amp.



#### 1.1.1 Netlist

```
* Audio Amplifier – Voltage gain and frequency domain (ideal op. amp.)
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* 1st Exercise – Fundamentals Of Electronics – a.a. 2018–2019 – UniPD – 1 of 4 *
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* Ideal Operational Amplifier subcircuit
.LIB opamp.sub

* Amplifiers
XU1 V- V+ Vo opamp Aol=100k GBW=10meg

* Capacitances
C2 V+ Vi 100n

* Generators
Vin Vi 0 DC 0 AC 1 sin(0 100mV 10kHz 0 0 0)

* Resistances
R2 V+ 0 100k
R3 V- 0 1k
R4 Vo V- 10k
```

```
* Analysis
.AC DEC 10 1 100k
.backanno

.END
```