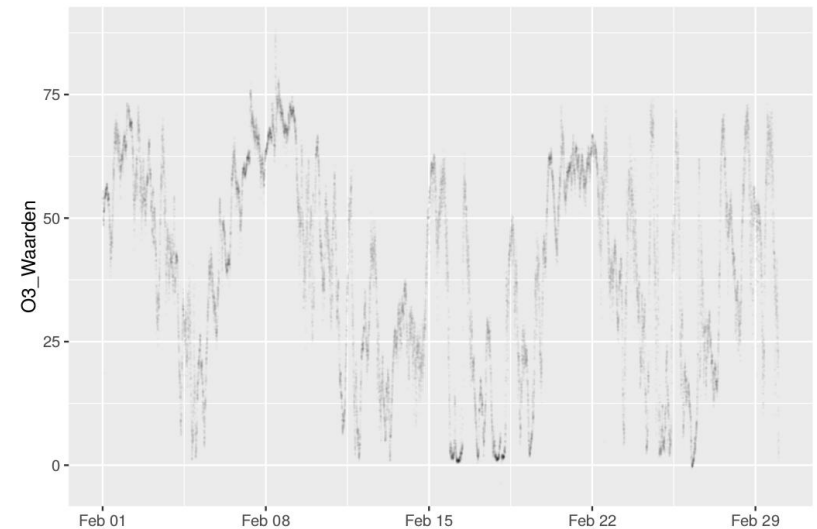
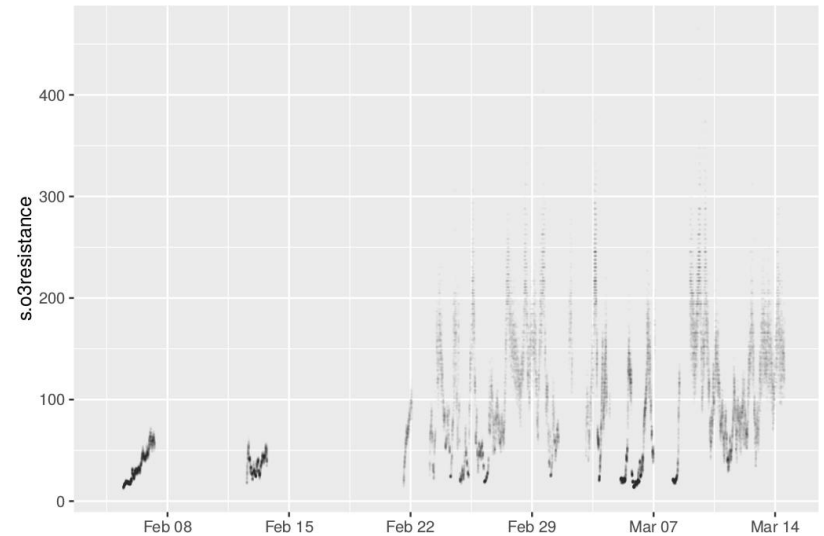


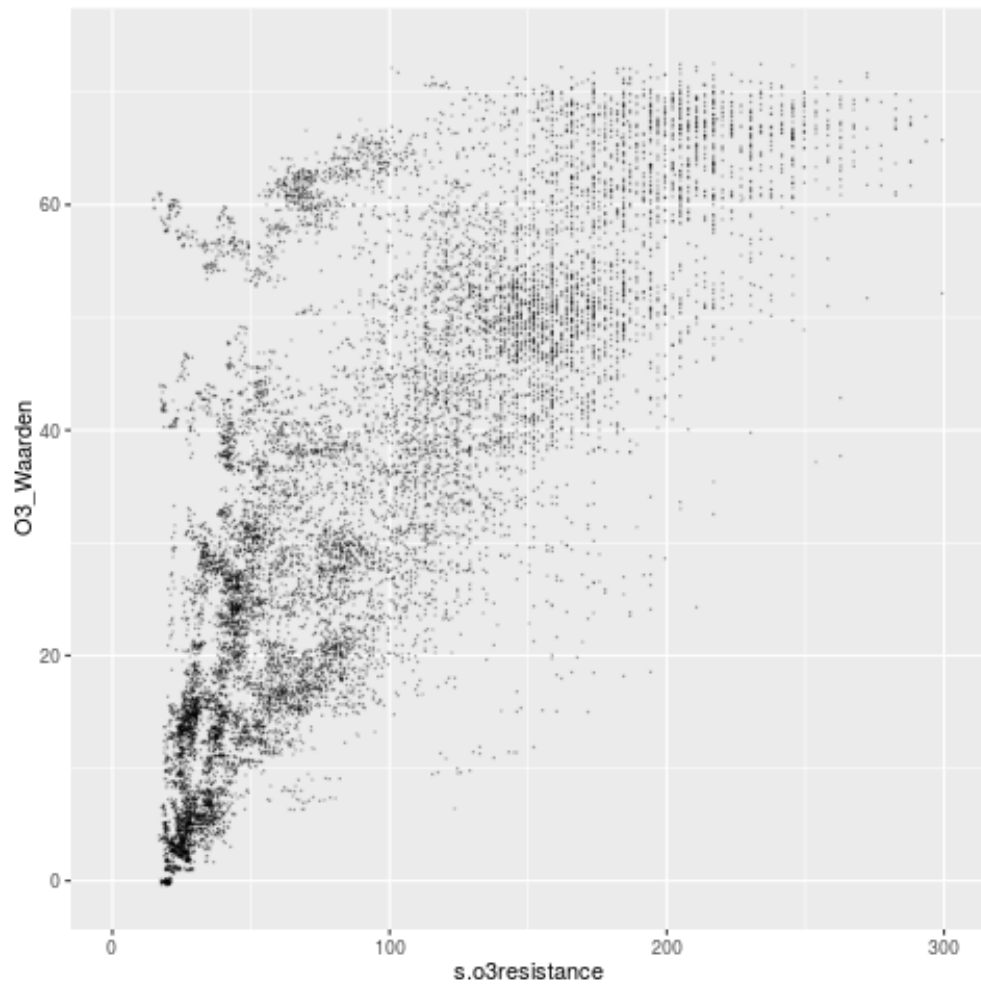
# Kunnen we goedkope sensors gebruiken om luchtkwaliteit te meten?



# Waarop letten?

- (Type)relatie
- Ruis
- Verschillen tussen sensoren
- Verstorende effecten
- Missende waardes

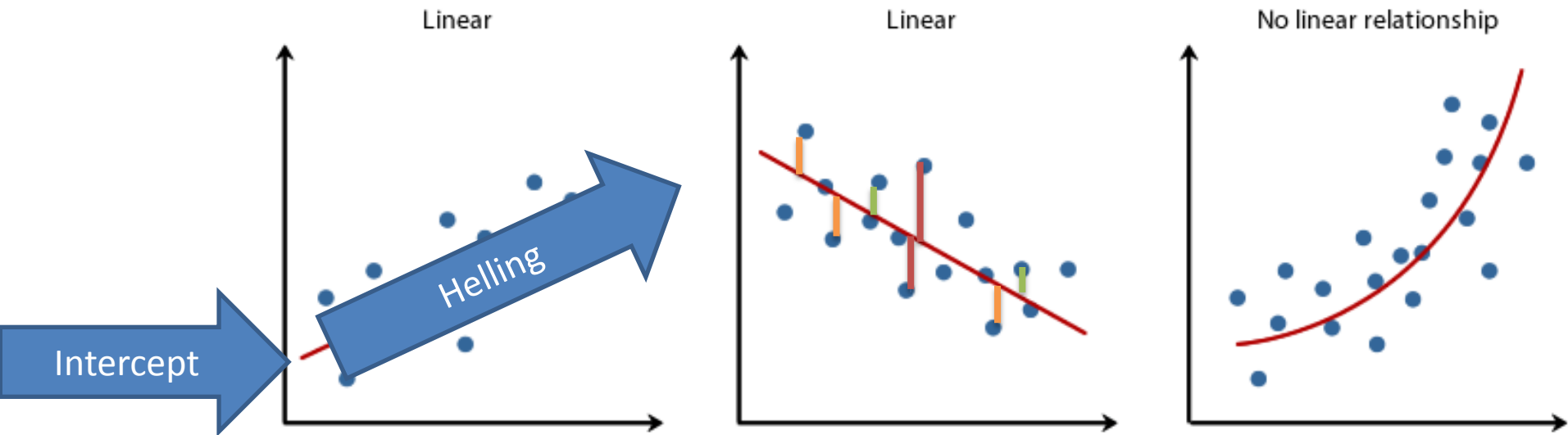




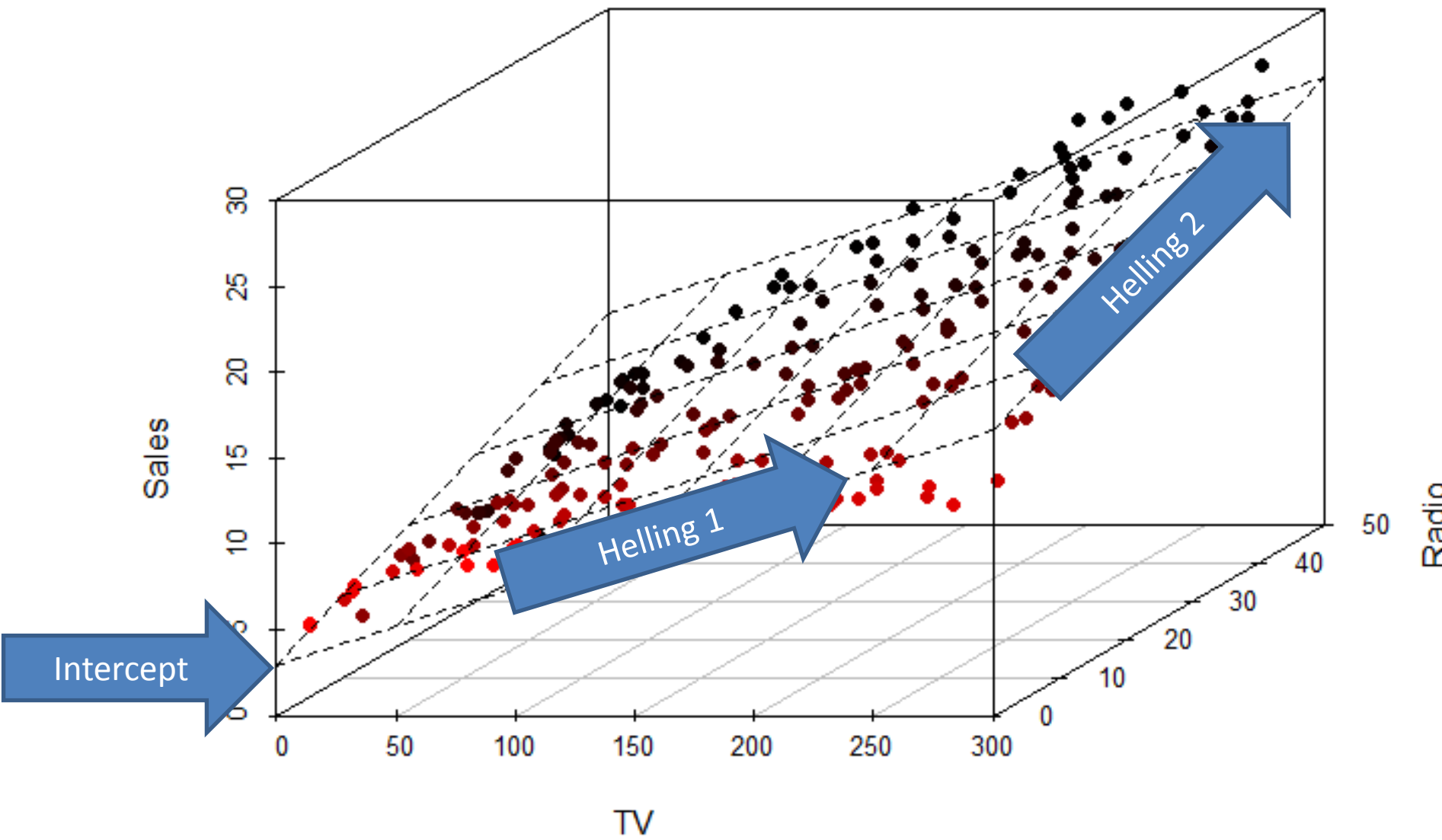
# Wat is belangrijk?

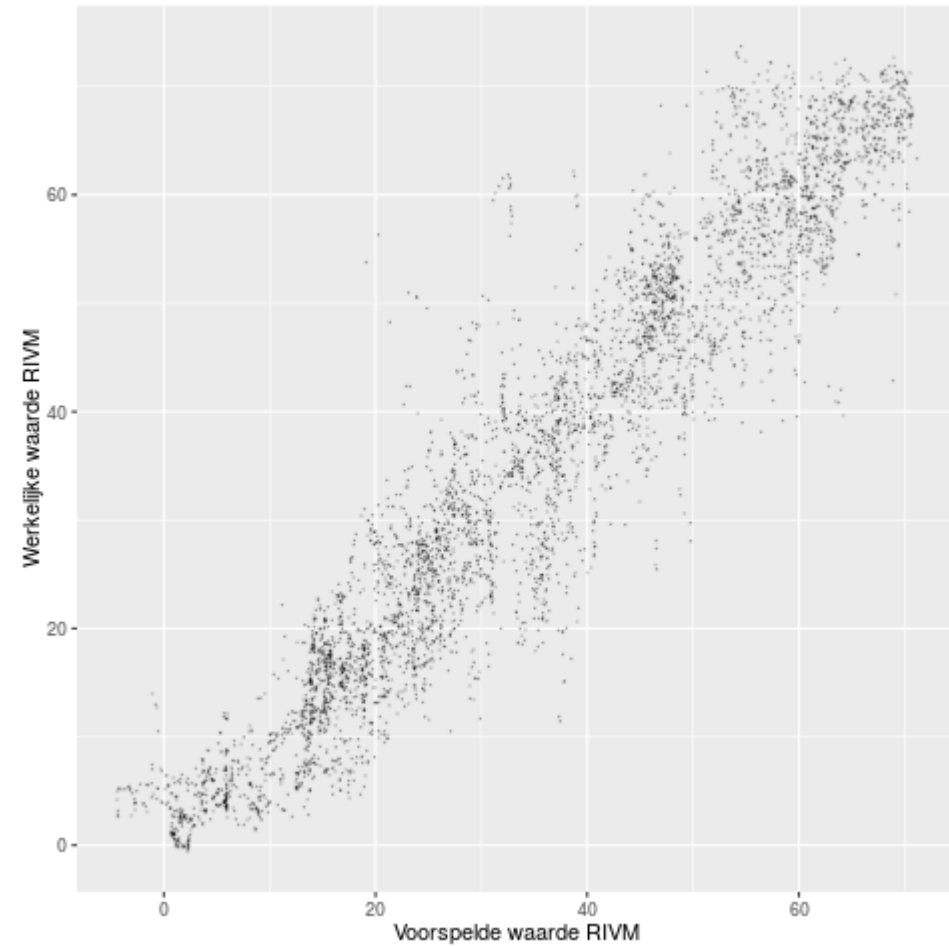
- datetime
- p.base.timer
- p.co.heater.mode
- p.co.heater.value
- p.error.base irq.service.stopped
- p.error.booting
- p.error.configuration
- p.error.memory
- p.error.sensor
- p.error.wifi.connection
- p.no2.heater.mode
- p.no2.heater.value
- p.power.aux\_power.input.active
- p.power.charged
- p.power.charging
- p.power.co2.sensor.on
- p.power.co.heater.on
- p.power.energy.harvesting.standby
- p.power.error
- p.power.gauge.ok
- p.power.h2s.sensor.on
- p.power.harvest.input.active
- p.power.mains.input.active
- p.power.nh3.sensor.on
- p.power.no2.heater.on
- p.power.no.battery
- p.power.o3.heater.on
- p.power.pm.sensor.on
- p.power.usb.input.active
- p.session.up.time
- p.total.up.time
- p.unit.serial.number
- p.unknown.17
- p.unknown.18
- p.unknown.19
- s.accelero.x
- s.accelero.y
- s.accelero.z
- **s.barometer**
- s.co2
- **s.coresistance**
- **s.humidity**
- s.latitude
- s.light.sensor.blue
- s.light.sensor.bottom
- s.light.sensor.green
- s.light.sensor.red
- s.light.sensor.top
- s.longitude
- **s.no2resistance**
- **s.o3resistance**
- s.rain.backside.left
- s.rain.backside.right
- s.rain.frontside.left
- s.rain.frontside.right
- s.rgb.color
- s.satinfo.dilution
- s.satinfo.fix
- s.satinfo.num
- s.second.of.day
- **s.temperature.ambient**
- s.temperature.unit

# Lineaire regressie



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$$\begin{aligned} O_3 = & 89.1177 \\ & + 0.03420626 * s.coresistance * \log(s.o_3resistance) \\ & - 0.008836714 * s.light.sensor.bottom \\ & - 0.02934928 * s.coresistance * s.temperature.ambient \\ & - 1.439367 * s.temperature.ambient * \log(s.coresistance) \\ & + 1.26521 * \log(s.coresistance) * \sqrt{s.coresistance} \\ & - 0.000343098 * s.coresistance * s.no_2resistance \\ & + 0.02761877 * s.no_2resistance * \log(s.o_3resistance) \\ & - 0.0002260495 * s.barometer * s.coresistance \\ & + 0.0699428 * s.humidity \\ & + 0.008435412 * s.temperature.unit * \sqrt{s.no_2resistance} \end{aligned}$$