

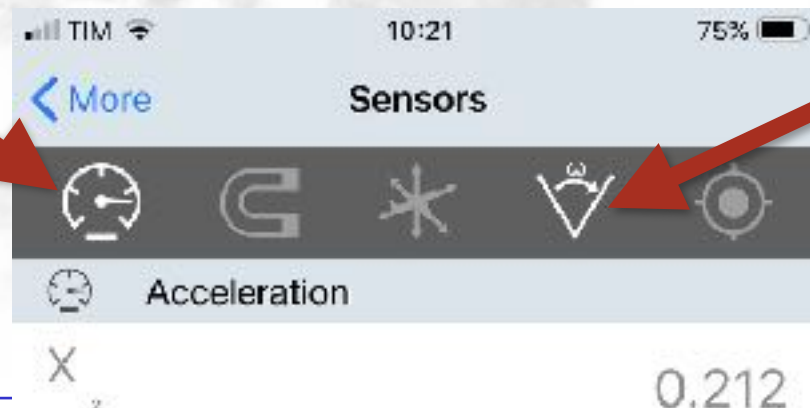
# Acquisizione Misure Sensori SmartphoneEs.

## Es. C02\_01

- ✈ Utilizzo App **Matlab Mobile**
- ✈ Connettere l'app al Marthworks Cloud (NB. usare licenza Accademia - quindi usare le credenziali della mail parthenope)
- ✈ Avvia visualizzazione misure IMU cliccando sulle relative icone:



Accelerometri



Gyro

- ✈ Fissare **Data Rate** misure

$$\gamma = n/\delta t \quad [\text{Hz}]$$

$n$  numero di campioni

$\delta t$  intervallo di misura

- ✈ Data rate fissato in base all'applicazione

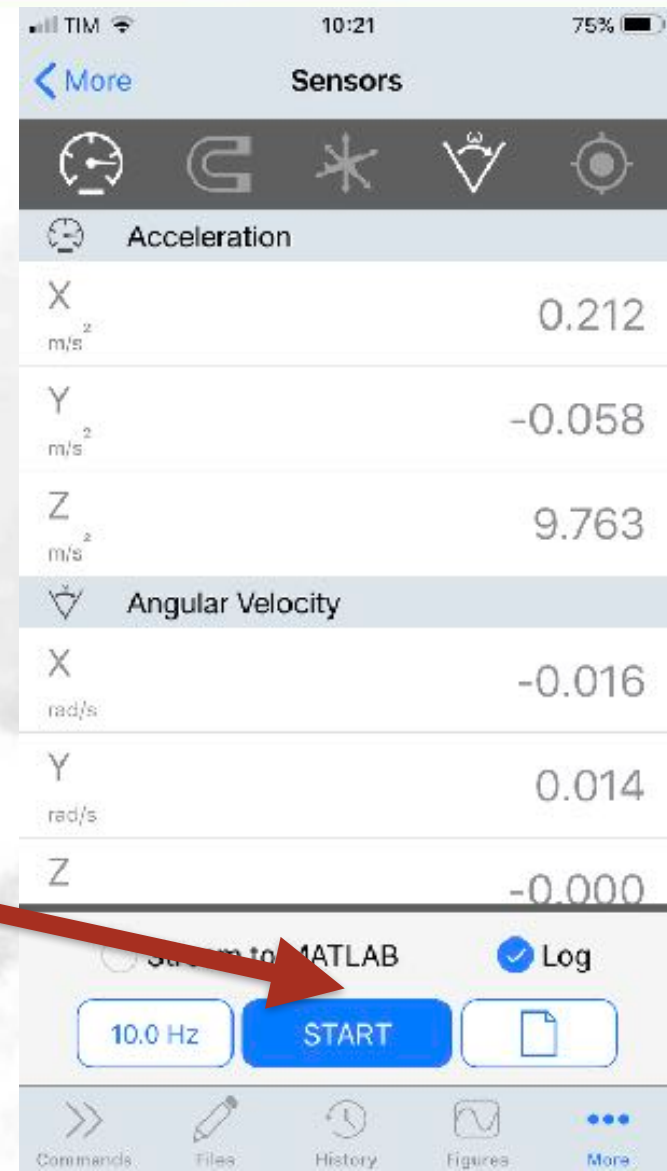
Data Rate



✈️ Selezioniamo l'opzione "Log" che permette di salvare in locale le misure in un file che verrà caricato sul cloud (Matlab Drive) alla fine della sessione di misura

✈️ **Iniziamo Sessione di Misura**

Inizio

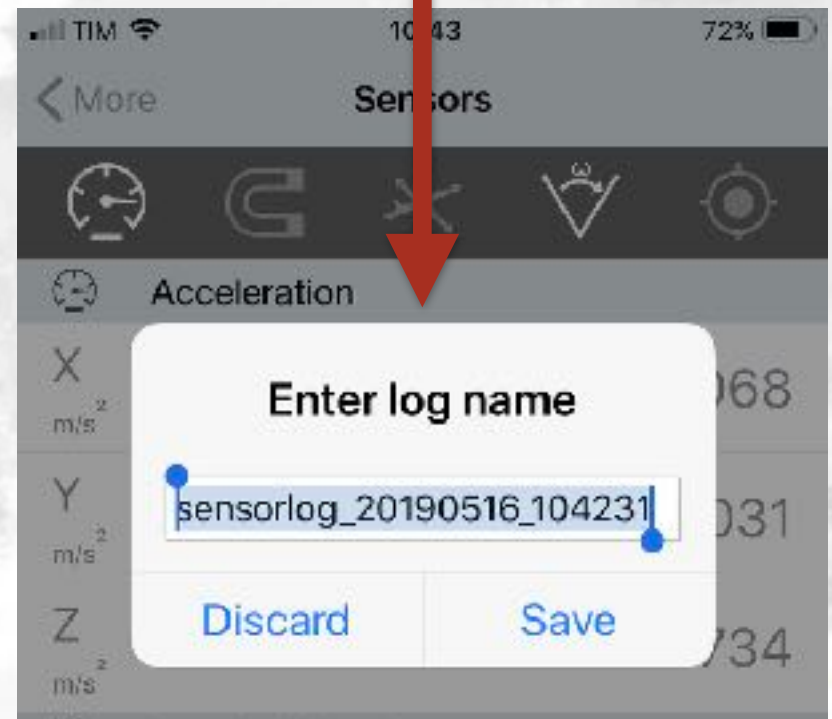


- ✈ **Terminiamo Sessione di Misura**
- ✈ **Definiamo nome file**

**Termina**



**Nome Log file**

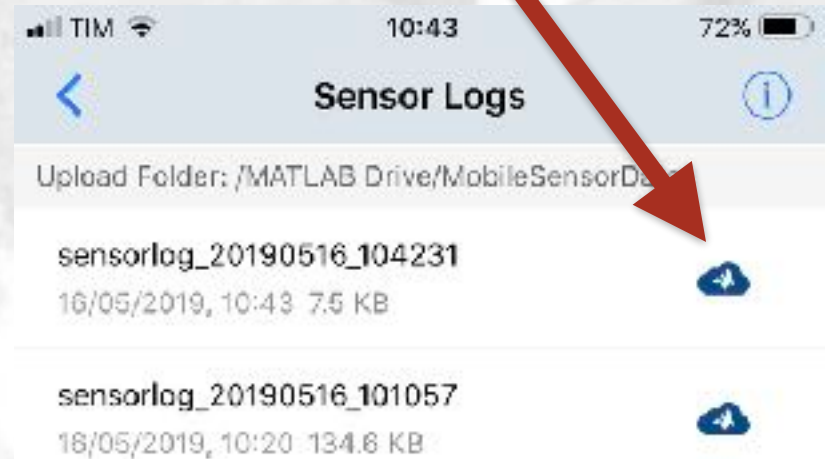


✈ **Carichiamo log file sul Cloud**

✈ Fare attenzione a configurare l'app per caricare file sotto copertura wifi

Accesso Sezione Log

Icona Blue  
file caricato sul cloud

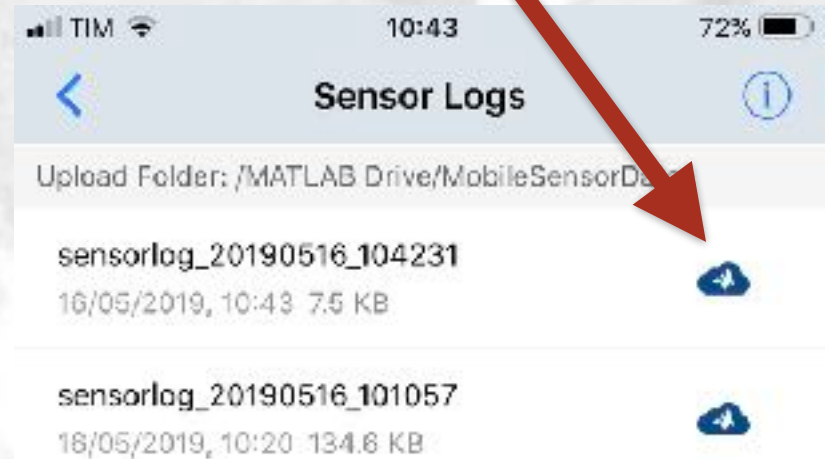
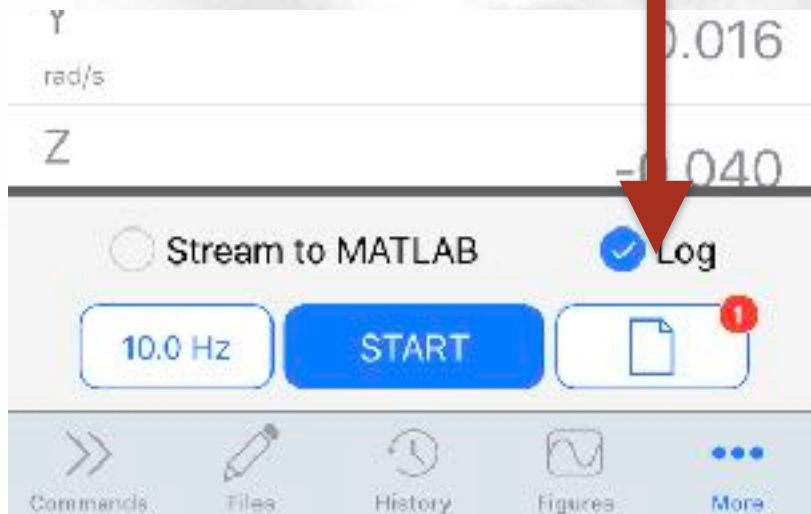


✈ **Carichiamo log file sul Cloud**

✈ Fare attenzione a configurare l'app per caricare file sotto copertura wifi

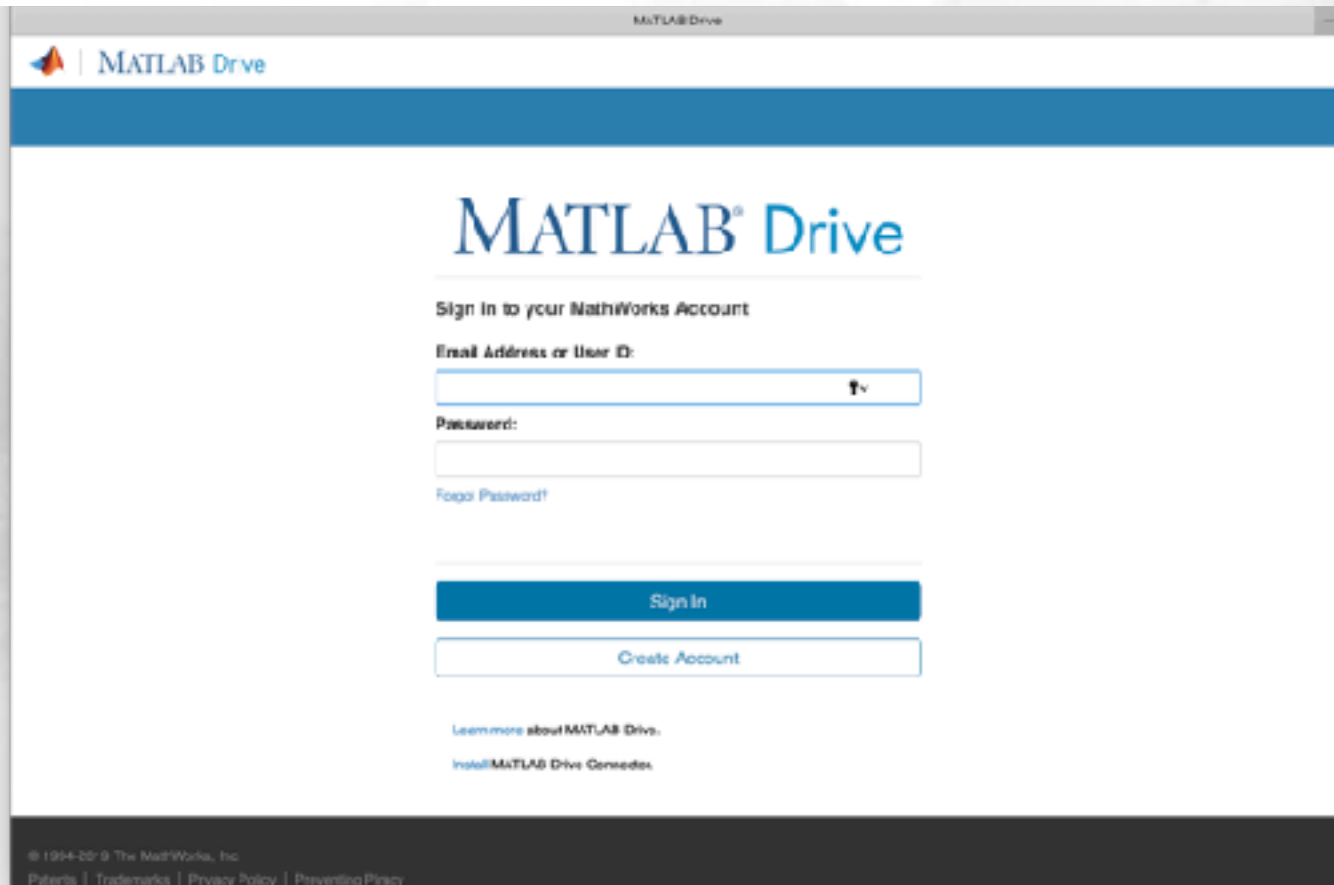
Accesso Sezione Log

Icona Blue  
file caricato sul cloud



## ✈️ Accesso Matlab Drive:

<https://drive.matlab.com/>

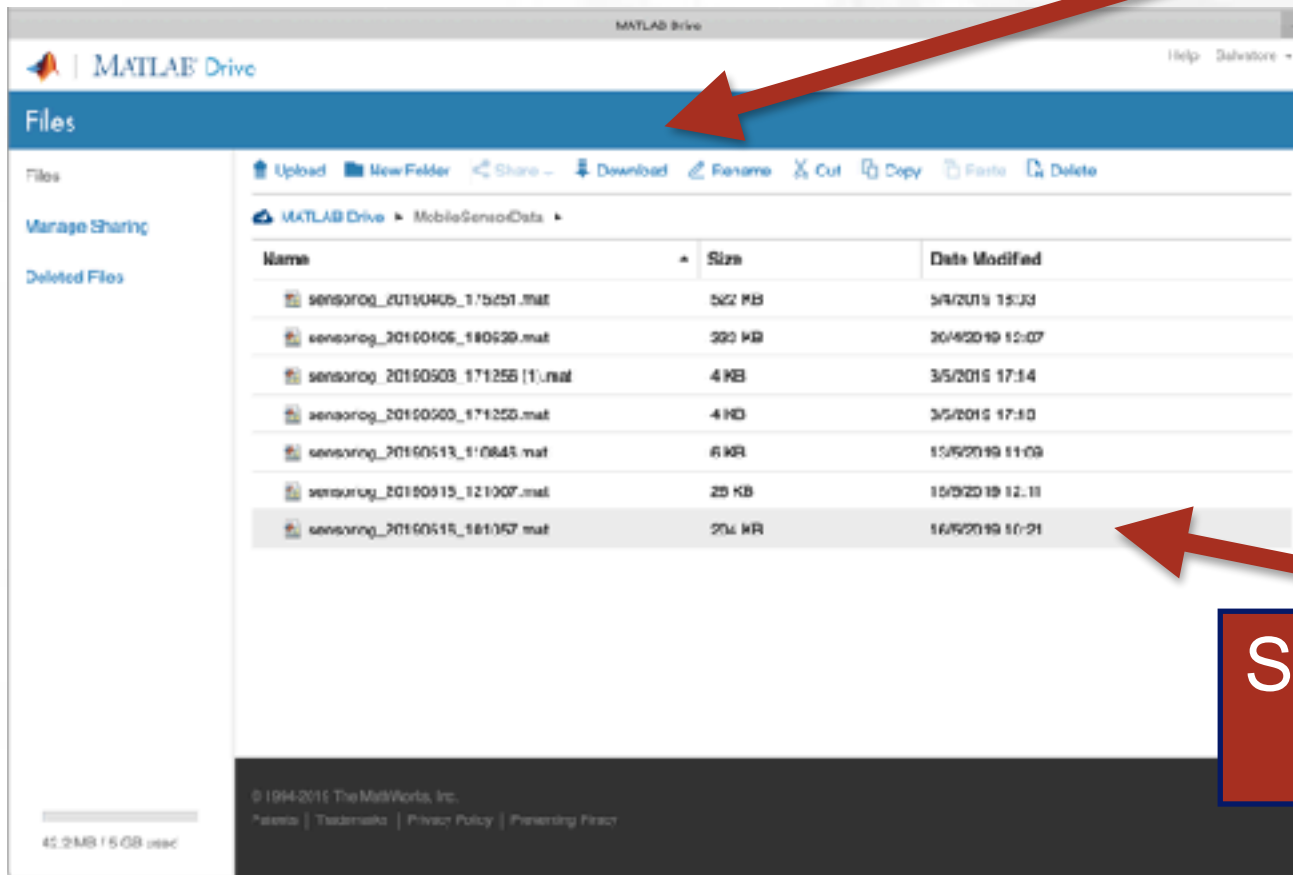


The screenshot shows the MATLAB Drive login interface. At the top left is the MATLAB logo and the text 'MATLAB Drive'. Below this is a blue header bar. The main content area features the 'MATLAB Drive' logo in a large, blue, serif font. Underneath the logo is the text 'Sign in to your MathWorks Account'. There are two input fields: 'Email Address or User ID:' and 'Password:'. The 'Email Address or User ID:' field has a small eye icon on the right. Below the password field is a 'Forgot Password?' link. There are two buttons: a blue 'Sign In' button and a white 'Create Account' button with a blue border. At the bottom of the page, there are links for 'Learn more about MATLAB Drive.' and 'Install MATLAB Drive Connected.'. The footer contains copyright information: '© 1994-2019 The MathWorks, Inc.' and links for 'Patents | Trademarks | Privacy Policy | Preventing Piracy'.

✈ **Accesso upload folder scelto**

✈ **download file**

**Tasto Download**



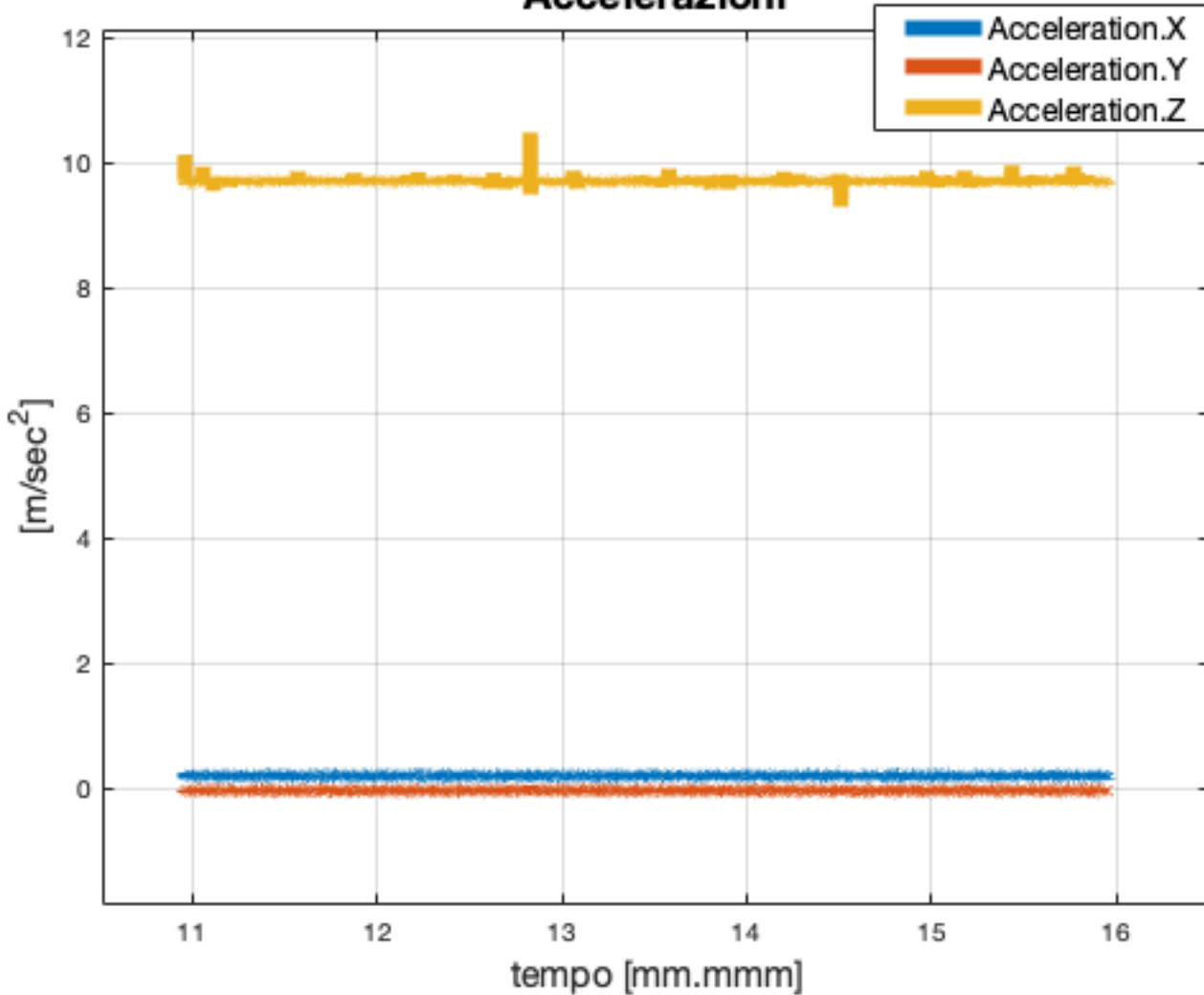
The screenshot shows the MATLAB Drive web interface. At the top, there is a navigation bar with the MATLAB logo and the text 'MATLAB Drive'. Below this is a 'Files' section with a blue header. A toolbar contains several icons: Upload, New Folder, Share, Download, Rename, Cut, Copy, Paste, and Delete. The 'Download' icon is highlighted with a red arrow pointing to a red callout box. Below the toolbar is a table of files. The table has three columns: Name, Size, and Date Modified. The last row of the table is highlighted in grey, and a red arrow points to it from a red callout box.

Name	Size	Date Modified
sensorog_c0110405_115251.mat	522 KB	3/4/2015 15:33
sensorog_20150505_180530.mat	322 KB	30/4/2015 15:07
sensorog_20150505_171255 (1).mat	4 KB	3/5/2015 17:14
sensorog_20150505_171255.mat	4 KB	3/5/2015 17:10
sensoring_20150513_110645.mat	6 KB	15/5/2015 11:09
sensorog_20150515_121007.mat	20 KB	15/5/2015 12:11
sensoring_20150515_181157.mat	204 KB	16/5/2015 11:21

**Seleziona File da Scaricare**



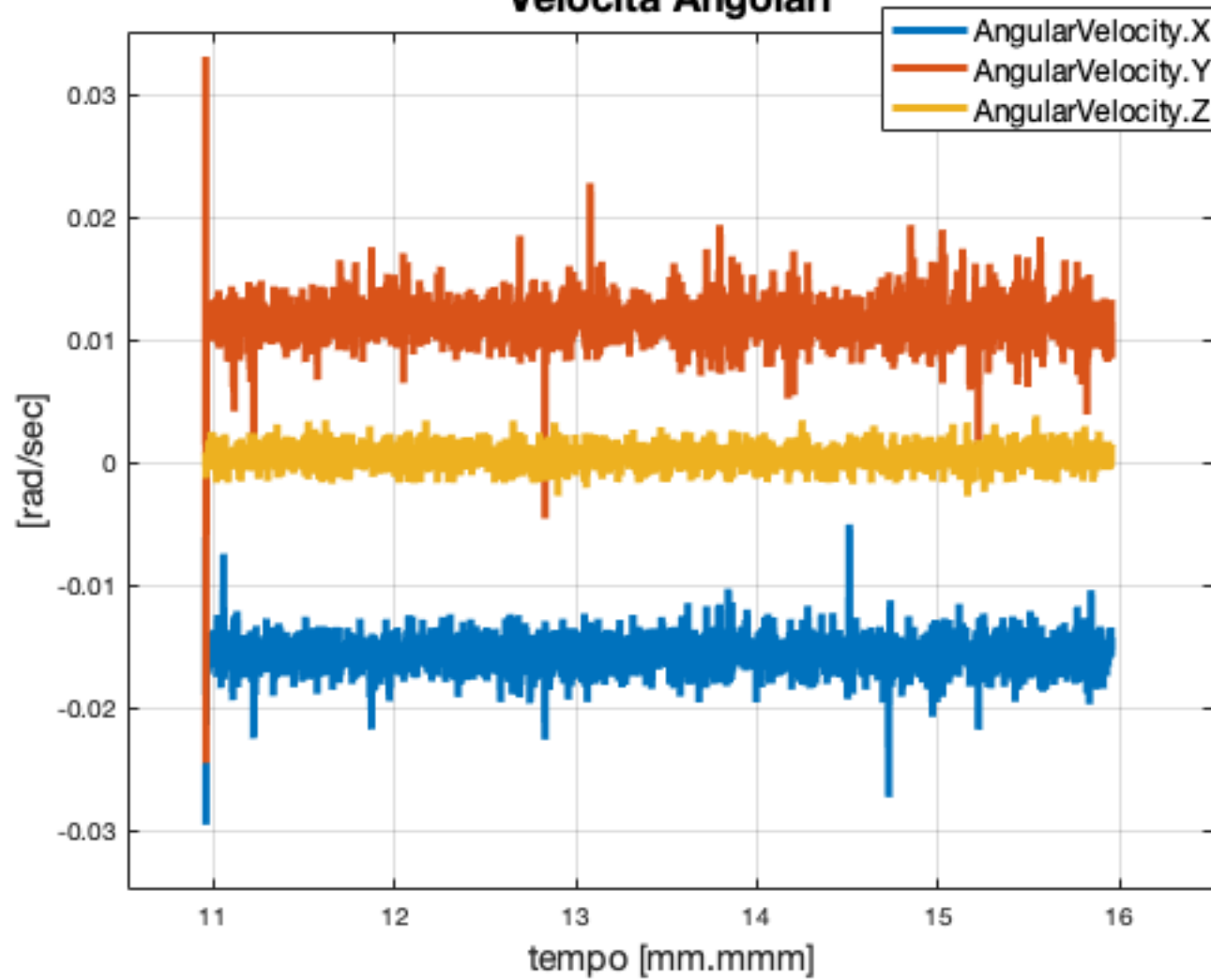
## Accelerazioni



5 min di dati a 10 HZ  
forniscono 3000  
campioni

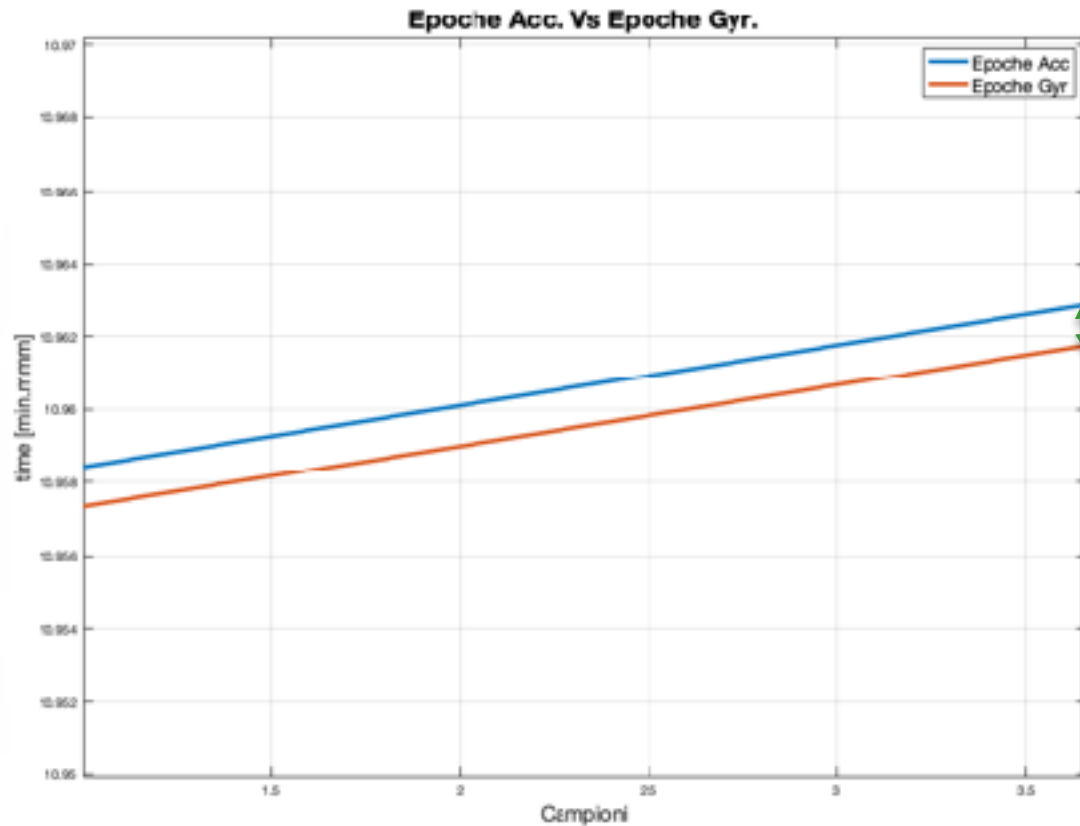
asse z diretto lungo  
la verticale misura g

## Velocita Angolari



# I Problema

Risolvere problema legato all'asincronia dei sensori



Time Off-set

✈ epoche acc > epoche gyr

# I Problema

“Trasportare” misure acc. gyr. in epoche sincronizzate e coincidenti con le misure più giovani

