

Szintezőlécek kalibrációja lézer- interferométerrel

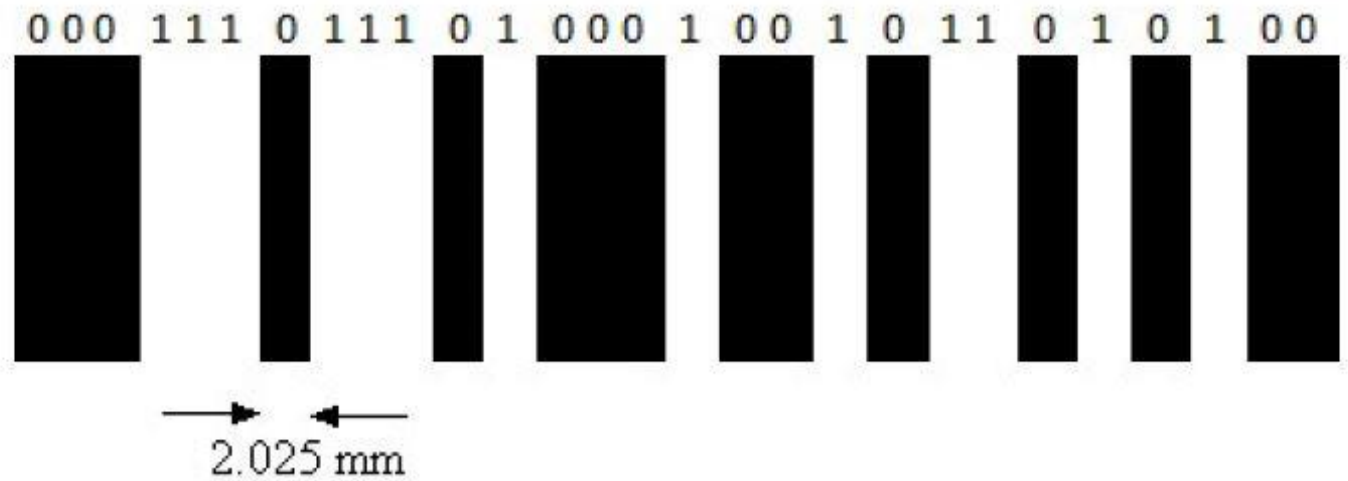


KÉSZÍTETTE: ÁCS ÁGNES MÁRIA

KONZULENSEK: DR. ÉGETŐ CSABA

DR. RÓZSA SZABOLCS

Léckalibrálás



Felhasznált eszközök



$\pm 20 - 30 \mu\text{m/m}$ vagy $\pm 0,5 \mu\text{m/m}$

Unstable
Preheat
Beam obstructed

-189,68

mode: linear (retro- compensation: full mm

Readings

Date: 2018.4.18.

11-28-49.378	-	0,000144
11-28-58.282	-	-10,580742
11-29-5.723	-	-20,665100
11-29-13.609	-	-30,071194
11-29-19.674	-	-40,487326
11-29-26.50	-	-50,108436
11-29-33.922	-	-60,254316
11-29-39.658	-	-70,891374
11-29-46.378	-	-80,264231
11-29-53.391	-	-90,229231
11-30-0.242	-	-100,612839
11-30-7.618	-	-110,554963
11-30-13.571	-	-120,430100
11-30-19.34	-	-130,057398
11-30-25.250	-	-140,336909
11-30-31.98	-	-150,450954
11-30-37.266	-	-160,082066
11-30-42.762	-	-170,926139
11-30-49.603	-	-180,086317
11-30-56.583	-	-189,684118

Select Video Source:

USB Video Device

Connect Disconnect

LED Control

LED 1 LED 2 Off

Exposure Adjustment

AE On/Off

Exposure (16-220) 79

File name

D:\AA\20180418_1\

Save image

Connect

Reset

Datum

Save

Linear (retro)

Capture

Last reading: -189,684118

Air temperature: 22,1 °

Pressure: 1017,0 mba

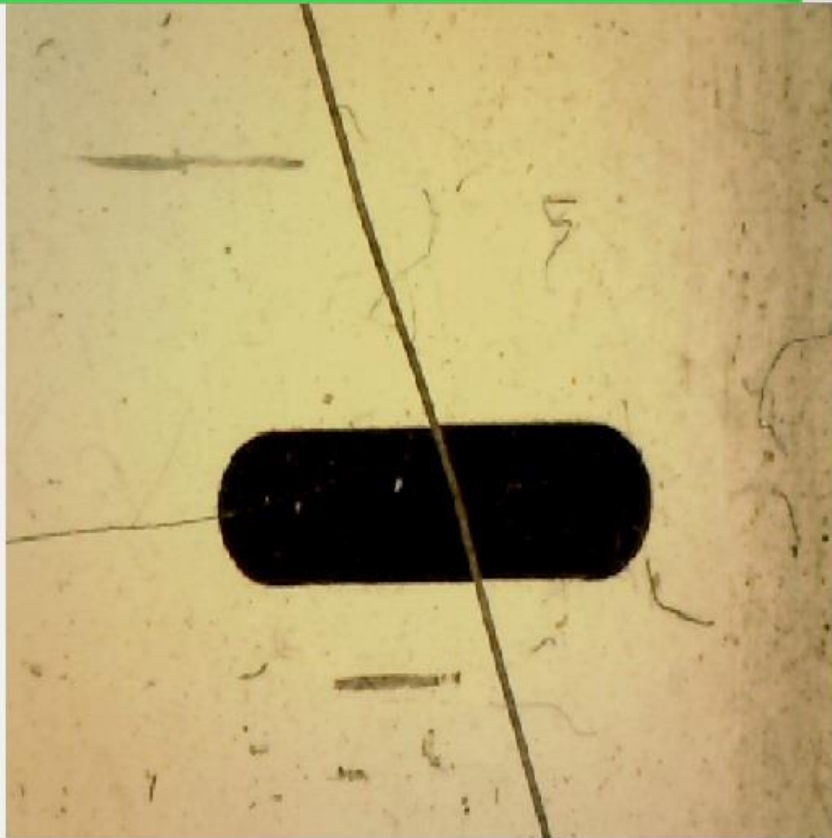
Humidity: 49,6 %R

Material temperature

Sensor 1: 20,0 °

Sensor 2: 22,7 °

Sensor 3: 20,0 °



DinoCapture 2.0

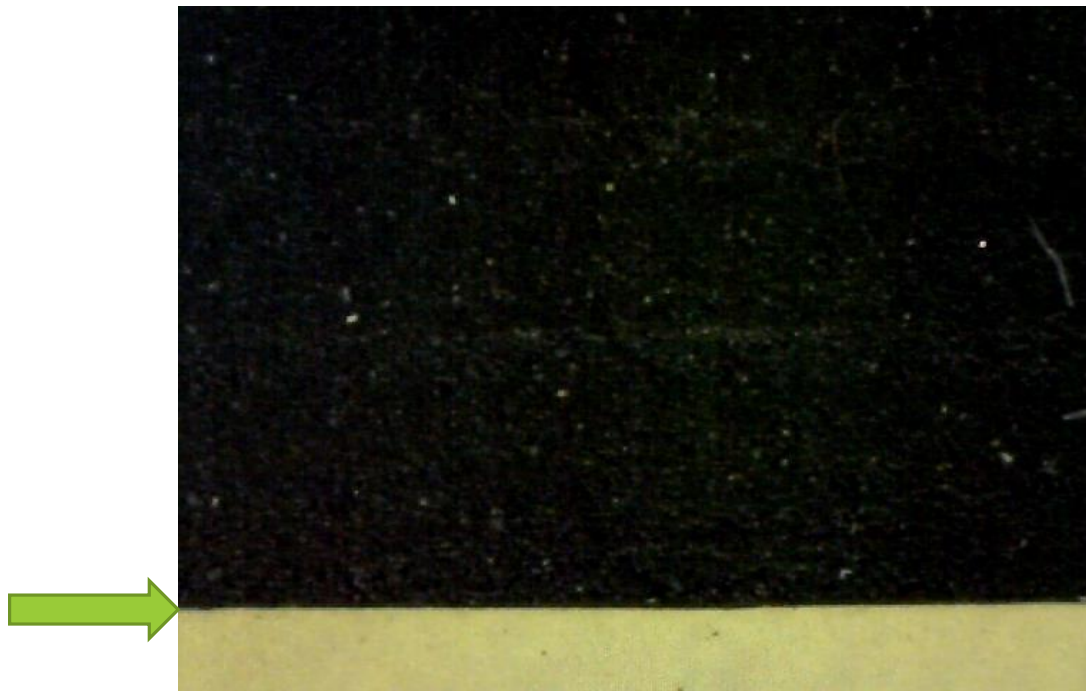


Default

Photo



Kamera kalibrálása



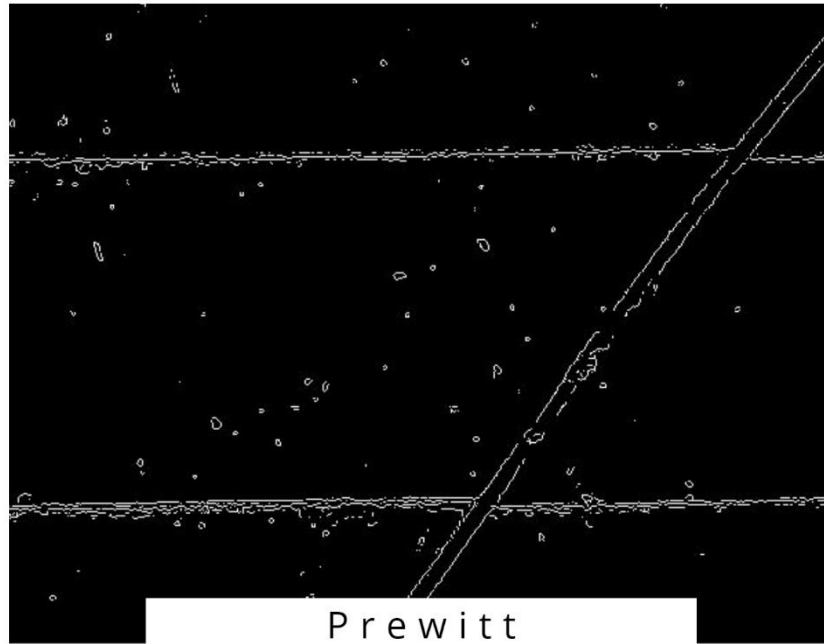
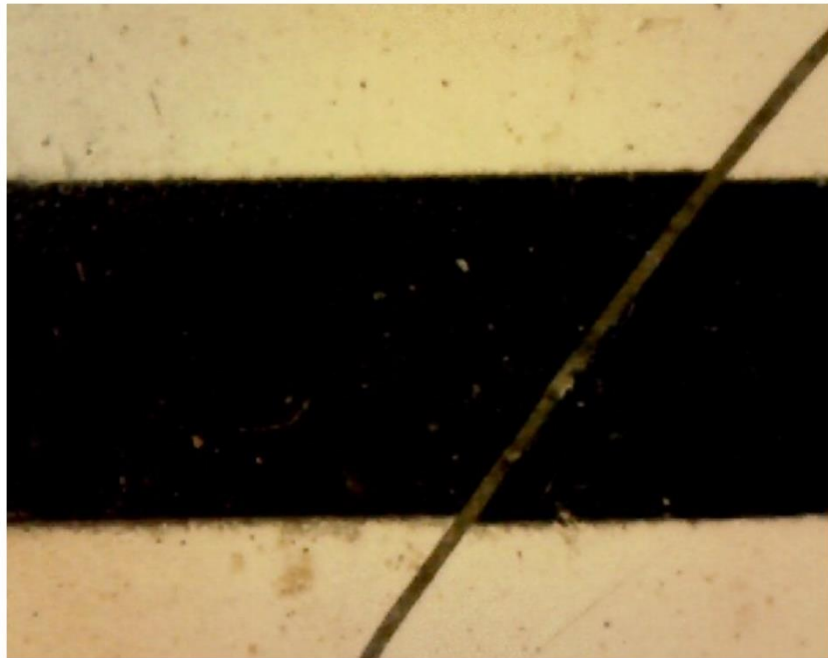
0,000386

$$p = \frac{i_2 - i_1}{k_2 - k_1}$$

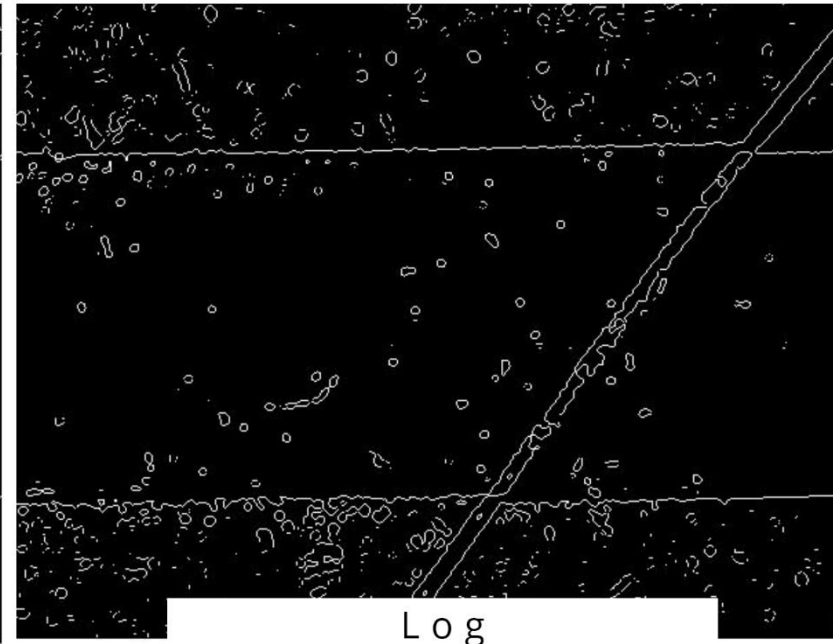


-1,980443

Éldetektálás



Prewitt



Log

RANSAC - eljárás

Iteratív

1. v

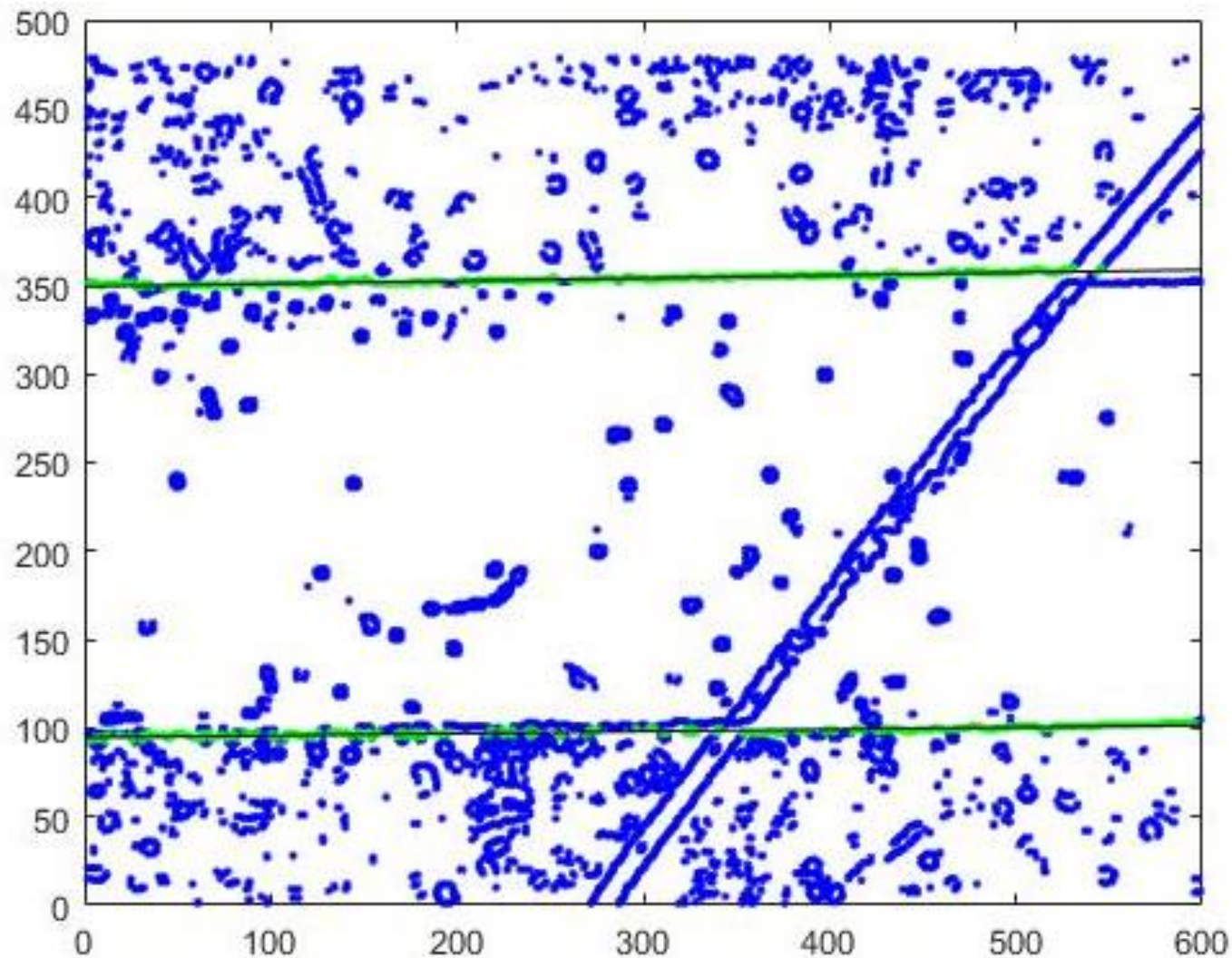
Nem de

2. r
az

Hatékon

3. az
szár

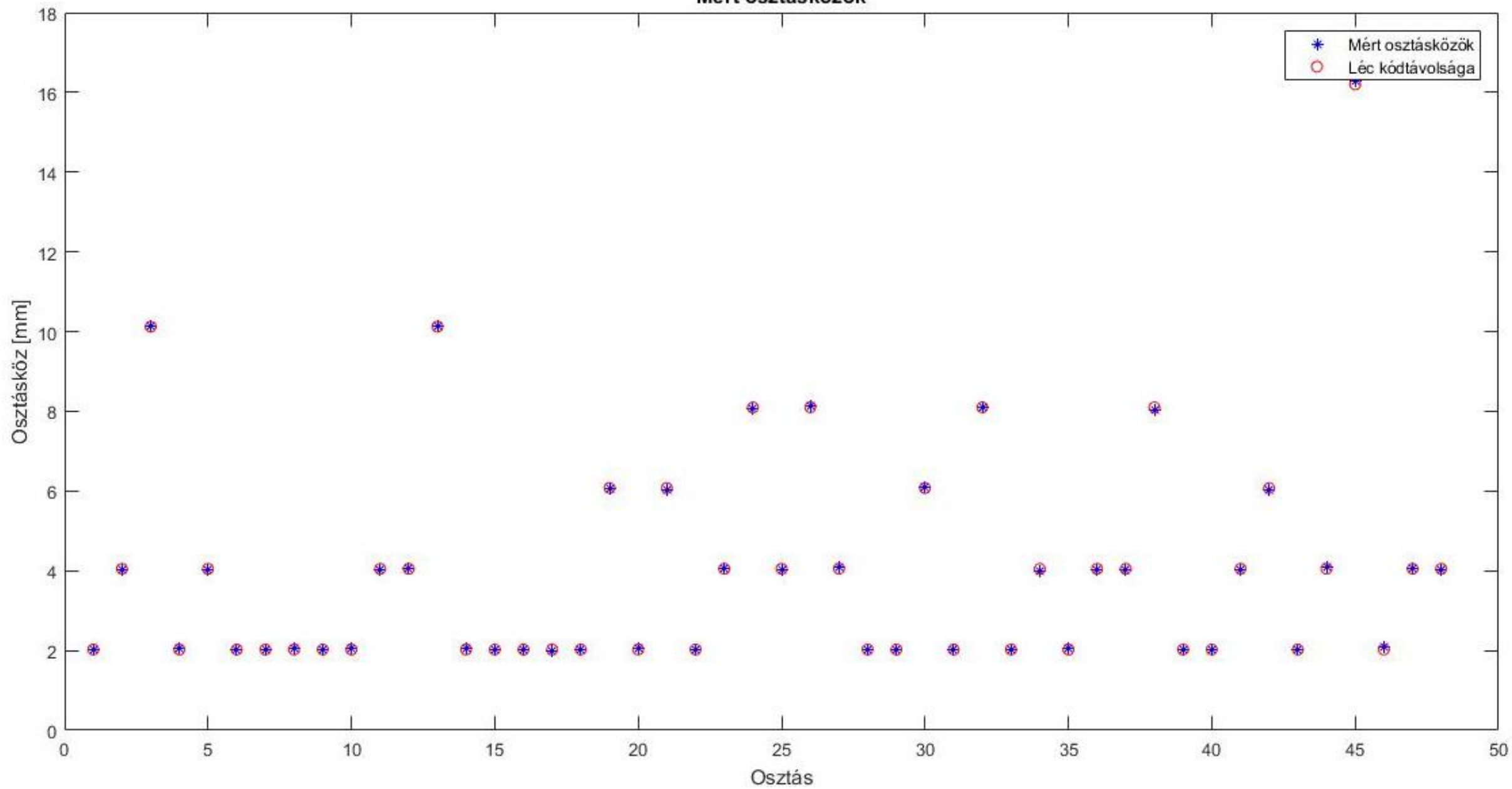
4. a



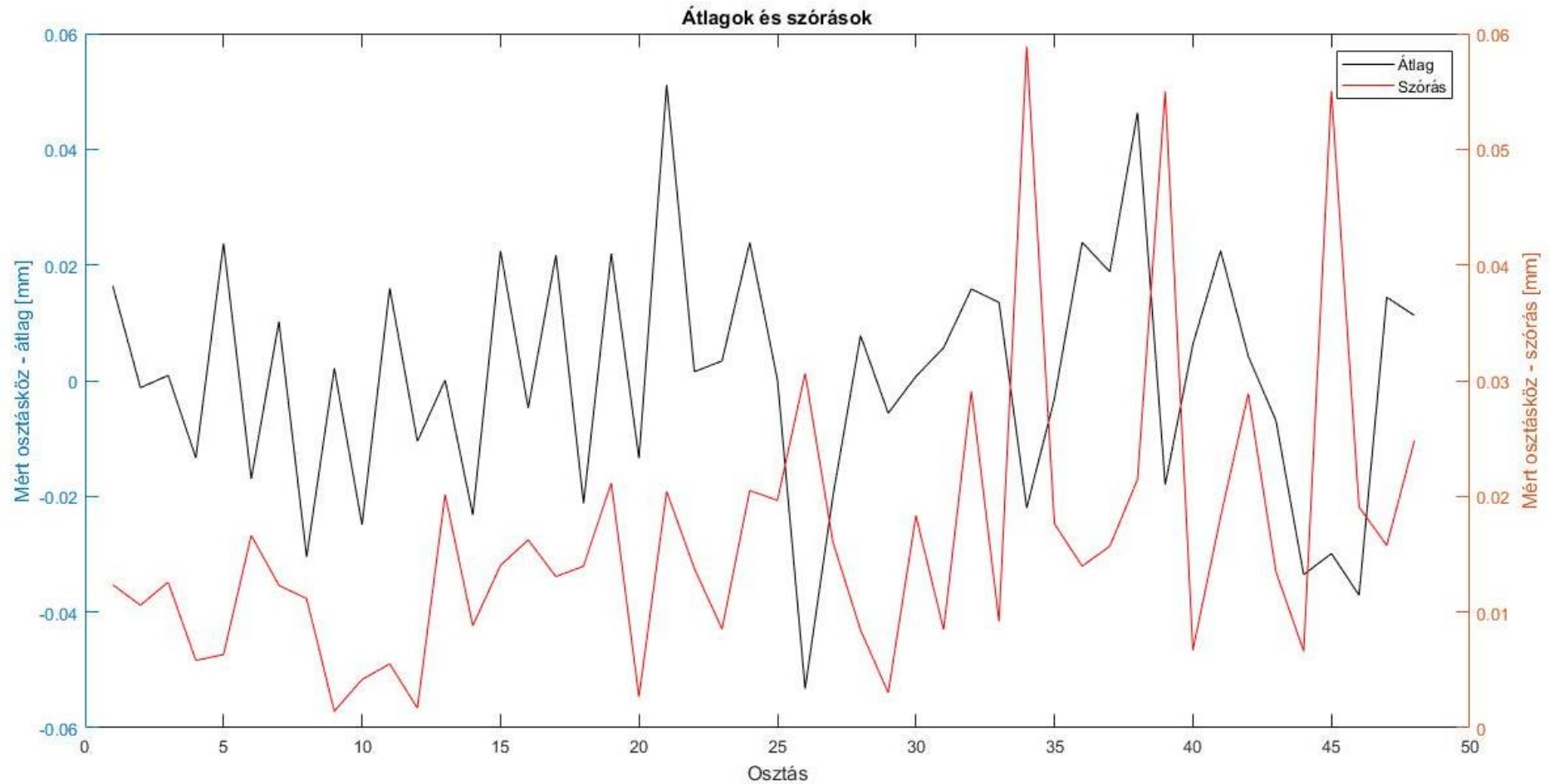
a
ll

obb

Mért osztásközök



Kapott eredmények



Konklúzió

Precízebb lineáris vezető:

- Kígyózás (elfordulás)
- Interferométer problémái
- „Lötyögés”

Köszönöm a figyelmet!
