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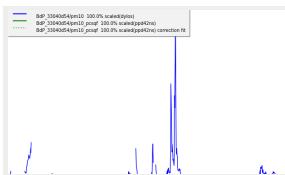
# Summary of correlations of sensor kits and sensor modules

Sensorkits: BdP\_33040d54 BdP\_3f18c330 BdP\_8d5ba45f  
Report generated on: Mon Oct 2 16:33:13 CEST 2017

## R-square and statistical summary

### Measurement PM10 correlation key values

Correlation 1 - PM10 - kit BdP\_33040d54 sensor type DYLOS with kit BdP\_33040d54 sensor type PPD42NS:



nr samples 783, min= 1.00, max=327.00

avg=22.15, std dev=29.72

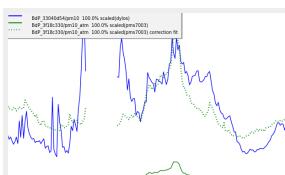
R-squared:

**0.0004**

Best fit polynomial coefficients:

[ 2.953e+02, -4.047e-01]

Correlation 2 - PM10 - kit BdP\_33040d54 sensor type DYLOS with kit BdP\_3f18c330 sensor type PMS7003:



nr samples 185, min= 5.86, max=80.38

avg=24.96, std dev=15.20

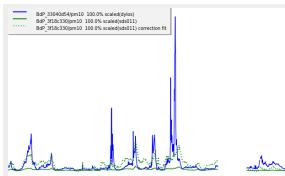
R-squared:

**0.3919**

Best fit polynomial coefficients:

[ 1.321e+02, 4.478e+00]

Correlation 3 - PM10 - kit BdP\_33040d54 sensor type DYLOS with kit BdP\_3f18c330 sensor type SDS011:



nr samples 1208, min= 5.00, max=248.88

avg=58.85, std dev=42.29

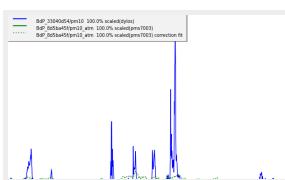
R-squared:

**0.2041**

Best fit polynomial coefficients:

[ -5.290e+01, 6.425e+00]

Correlation 4 - PM10 - kit BdP\_33040d54 sensor type DYLOS with kit BdP\_8d5ba45f sensor type PMS7003:



nr samples 1210, min= 6.38, max=206.57

avg=86.60, std dev=45.96

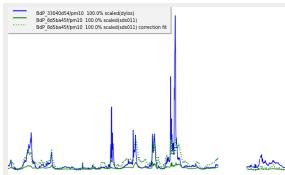
R-squared:

**0.0944**

Best fit polynomial coefficients:

[ -2.279e+01, 4.019e+00]

Correlation 5 - PM10 - kit BdP\_33040d54 sensor type DYLOS with kit BdP\_8d5ba45f sensor type SDS011:



nr samples 1209, min= 6.00, max=402.25

avg=82.89, std dev=69.53

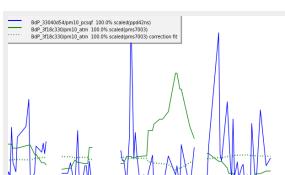
R-squared:

**0.2916**

Best fit polynomial coefficients:

[ -6.197e+01, 4.669e+00]

Correlation 6 - PM10 - kit BdP\_33040d54 sensor type PPD42NS with kit BdP\_3f18c330 sensor type PMS7003:



nr samples 86, min= 6.39, max=77.29

avg=23.87, std dev=14.83

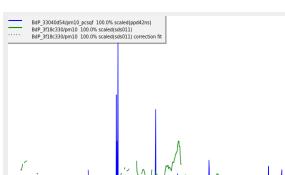
R-squared:

**0.0108**

Best fit polynomial coefficients:

[ 2.409e+01, -1.416e-01]

Correlation 7 - PM10 - kit BdP\_33040d54 sensor type PPD42NS with kit BdP\_3f18c330 sensor type SDS011:



nr samples 341, min= 6.89, max=213.36

avg=55.40, std dev=43.47

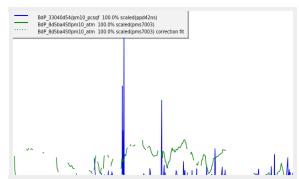
R-squared:

**0.0002**

Best fit polynomial coefficients:

[ 2.292e+01, 1.336e-02]

Correlation 8 - PM10 - kit BdP\_33040d54 sensor type PPD42NS with kit BdP\_8d5ba45f sensor type PMS7003:



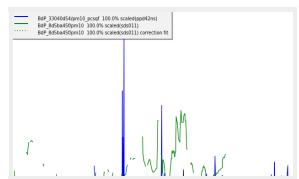
nr samples 343, min= 6.93, max=194.25  
avg=80.31, std dev=48.01

R-squared:

**0.0022**

Best fit polynomial coefficients:  
[ 2.018e+01, 4.400e-02]

Correlation 9 - PM10 - kit BdP\_33040d54 sensor type PPD42NS with kit BdP\_8d5ba45f sensor type SDS011:



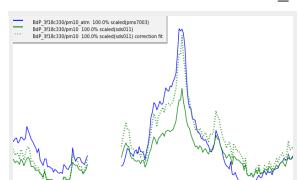
nr samples 343, min= 8.29, max=329.00  
avg=77.68, std dev=66.92

R-squared:

**0.0004**

Best fit polynomial coefficients:  
[ 2.265e+01, 1.367e-02]

Correlation 10 - PM10 - kit BdP\_3f18c330 sensor type PMS7003 with kit BdP\_3f18c330 sensor type SDS011:



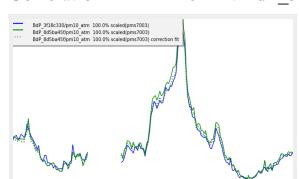
nr samples 184, min= 6.12, max=52.00  
avg=19.58, std dev= 8.48

R-squared:

**0.8067**

Best fit polynomial coefficients:  
[ -6.645e+00, 1.614e+00]

Correlation 11 - PM10 - kit BdP\_3f18c330 sensor type PMS7003 with kit BdP\_8d5ba45f sensor type PMS7003:



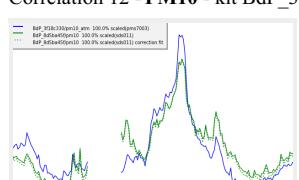
nr samples 184, min= 6.38, max=87.50  
avg=26.14, std dev=16.43

R-squared:

**0.9867**

Best fit polynomial coefficients:  
[ 8.572e-01, 9.215e-01]

Correlation 12 - PM10 - kit BdP\_3f18c330 sensor type PMS7003 with kit BdP\_8d5ba45f sensor type SDS011:



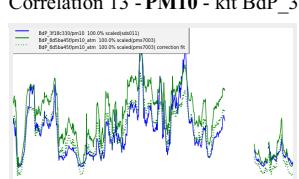
nr samples 184, min= 6.86, max=68.75  
avg=26.09, std dev=13.19

R-squared:

**0.8007**

Best fit polynomial coefficients:  
[ -2.009e+00, 1.033e+00]

Correlation 13 - PM10 - kit BdP\_3f18c330 sensor type SDS011 with kit BdP\_8d5ba45f sensor type PMS7003:



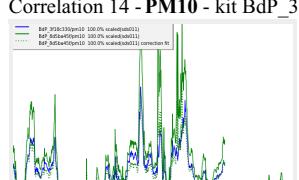
nr samples 1208, min= 5.75, max=209.88  
avg=86.65, std dev=45.94

R-squared:

**0.8323**

Best fit polynomial coefficients:  
[ -1.393e+01, 8.399e-01]

Correlation 14 - PM10 - kit BdP\_3f18c330 sensor type SDS011 with kit BdP\_8d5ba45f sensor type SDS011:



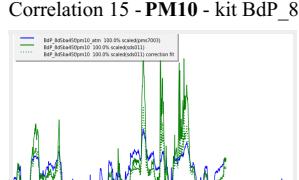
nr samples 1208, min= 6.62, max=398.12  
avg=83.01, std dev=69.84

R-squared:

**0.8905**

Best fit polynomial coefficients:  
[ 1.141e+01, 5.715e-01]

Correlation 15 - PM10 - kit BdP\_8d5ba45f sensor type PMS7003 with kit BdP\_8d5ba45f sensor type SDS011:



nr samples 1208, min= 5.88, max=403.50  
avg=82.94, std dev=69.81

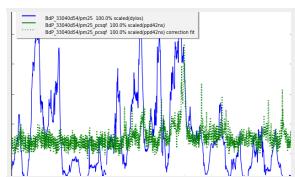
R-squared:

**0.7042**

Best fit polynomial coefficients:  
[ 4.077e+01, 5.526e-01]

## Measurement PM2.5 correlation key values

Correlation 16 - PM2.5 - kit BdP\_33040d54 sensor type **DYLOS** with kit BdP\_33040d54 sensor type **PPD42NS**:



nr samples 1342, min=131.38, max=1254.43

avg=336.84, std dev=114.12

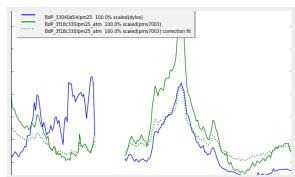
R-squared:

**0.0892**

Best fit polynomial coefficients:

[ 1.998e+03, 1.702e+01 ]

Correlation 17 - PM2.5 - kit BdP\_33040d54 sensor type **DYLOS** with kit BdP\_3f18c330 sensor type **PMS7003**:



nr samples 185, min=1022.14, max=14664.75

avg=4608.93, std dev=2821.33

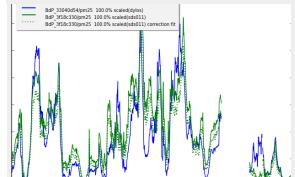
R-squared:

**0.2715**

Best fit polynomial coefficients:

[ 1.687e+03, 4.666e-01 ]

Correlation 18 - PM2.5 - kit BdP\_33040d54 sensor type **DYLOS** with kit BdP\_3f18c330 sensor type **SDS011**:



nr samples 1208, min=733.25, max=34527.00

avg=9968.92, std dev=6786.83

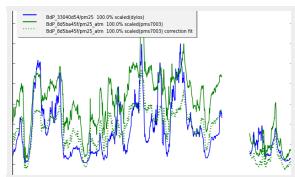
R-squared:

**0.7386**

Best fit polynomial coefficients:

[ -1.812e+02, 8.409e-01 ]

Correlation 19 - PM2.5 - kit BdP\_33040d54 sensor type **DYLOS** with kit BdP\_8d5ba45f sensor type **PMS7003**:



nr samples 1210, min=1042.25, max=37171.86

avg=14836.14, std dev=7334.29

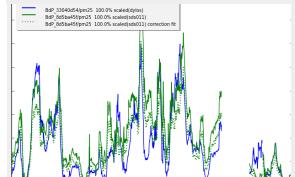
R-squared:

**0.5711**

Best fit polynomial coefficients:

[ -1.942e+03, 6.838e-01 ]

Correlation 20 - PM2.5 - kit BdP\_33040d54 sensor type **DYLOS** with kit BdP\_8d5ba45f sensor type **SDS011**:



nr samples 1209, min=1010.00, max=39234.25

avg=10807.58, std dev=7222.87

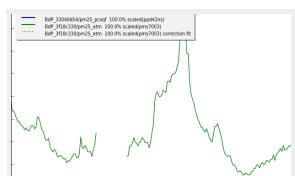
R-squared:

**0.7198**

Best fit polynomial coefficients:

[ -2.232e+02, 7.798e-01 ]

Correlation 21 - PM2.5 - kit BdP\_33040d54 sensor type **PPD42NS** with kit BdP\_3f18c330 sensor type **PMS7003**:



nr samples 185, min=1066.88, max=14677.38

avg=4609.78, std dev=2812.02

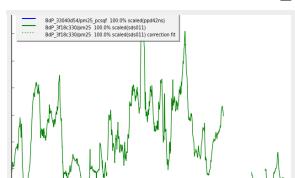
R-squared:

**0.0200**

Best fit polynomial coefficients:

[ 3.551e+02, -4.648e-03 ]

Correlation 22 - PM2.5 - kit BdP\_33040d54 sensor type **PPD42NS** with kit BdP\_3f18c330 sensor type **SDS011**:



nr samples 1207, min=739.38, max=34633.90

avg=9979.87, std dev=6781.47

R-squared:

**0.1602**

Best fit polynomial coefficients:

[ 2.685e+02, 6.910e-03 ]

Correlation 23 - PM2.5 - kit BdP\_33040d54 sensor type **PPD42NS** with kit BdP\_8d5ba45f sensor type **PMS7003**:



nr samples 1208, min=1082.33, max=37514.38

avg=14844.31, std dev=7338.39

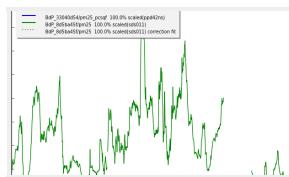
R-squared:

**0.0894**

Best fit polynomial coefficients:

[ 2.667e+02, 4.769e-03 ]

#### Correlation 24 - PM2.5 - kit BdP\_33040d54 sensor type PPD42NS with kit BdP\_8d5ba45f sensor type SDS011:



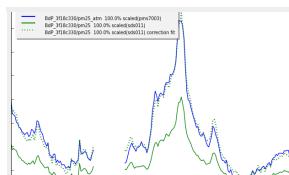
nr samples 1208, min=986.00, max=39216.25  
avg=10809.68, std dev=7232.86

R-squared:

**0.1676**

Best fit polynomial coefficients:  
[ 2.659e+02, 6.624e-03 ]

#### Correlation 25 - PM2.5 - kit BdP\_3f18c330 sensor type PMS7003 with kit BdP\_3f18c330 sensor type SDS011:



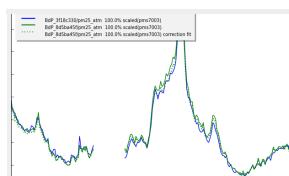
nr samples 184, min=866.00, max=8190.14  
avg=2584.43, std dev=1475.32

R-squared:

**0.9838**

Best fit polynomial coefficients:  
[ -3.072e+02, 1.902e+00 ]

#### Correlation 26 - PM2.5 - kit BdP\_3f18c330 sensor type PMS7003 with kit BdP\_8d5ba45f sensor type PMS7003:



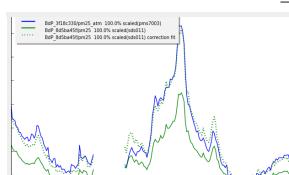
nr samples 184, min=1042.25, max=15339.25  
avg=4788.44, std dev=3012.67

R-squared:

**0.9887**

Best fit polynomial coefficients:  
[ 1.373e+02, 9.337e-01 ]

#### Correlation 27 - PM2.5 - kit BdP\_3f18c330 sensor type PMS7003 with kit BdP\_8d5ba45f sensor type SDS011:



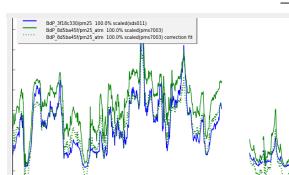
nr samples 184, min=1022.00, max=8957.88  
avg=3024.07, std dev=1695.87

R-squared:

**0.9621**

Best fit polynomial coefficients:  
[ -3.398e+02, 1.636e+00 ]

#### Correlation 28 - PM2.5 - kit BdP\_3f18c330 sensor type SDS011 with kit BdP\_8d5ba45f sensor type PMS7003:



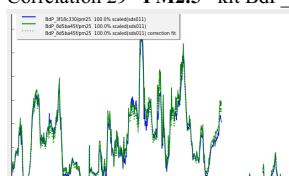
nr samples 1208, min=1084.75, max=37411.00  
avg=14841.57, std dev=7325.91

R-squared:

**0.9063**

Best fit polynomial coefficients:  
[ -3.120e+03, 8.819e-01 ]

#### Correlation 29 - PM2.5 - kit BdP\_3f18c330 sensor type SDS011 with kit BdP\_8d5ba45f sensor type SDS011:



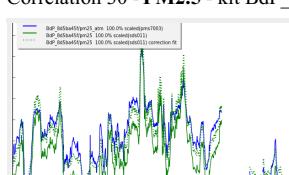
nr samples 1208, min=919.75, max=39084.00  
avg=10806.79, std dev=7215.18

R-squared:

**0.9790**

Best fit polynomial coefficients:  
[ -8.919e+01, 9.307e-01 ]

#### Correlation 30 - PM2.5 - kit BdP\_8d5ba45f sensor type PMS7003 with kit BdP\_8d5ba45f sensor type SDS011:



nr samples 1208, min=877.62, max=39216.25  
avg=10798.06, std dev=7237.84

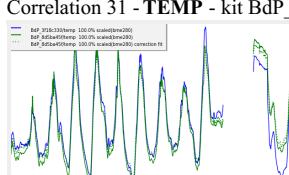
R-squared:

**0.9001**

Best fit polynomial coefficients:  
[ 4.453e+03, 9.615e-01 ]

#### Measurement TEMP correlation key values

##### Correlation 31 - TEMP - kit BdP\_3f18c330 sensor type BME280 with kit BdP\_8d5ba45f sensor type BME280:



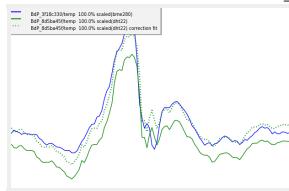
nr samples 1209, min=11.84, max=27.76  
avg=18.50, std dev= 3.82

R-squared:

**0.8953**

Best fit polynomial coefficients:  
[ 2.173e+00, 9.002e-01 ]

Correlation 32 - TEMP - kit BdP\_3f18c330 sensor type **BME280** with kit BdP\_8d5ba45f sensor type **DHT22**:



nr samples 122, min=14.50, max=19.73

avg=16.13, std dev= 1.12

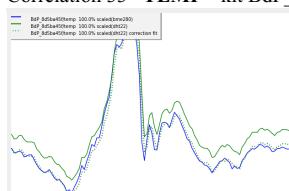
**R-squared:**

**0.9287**

Best fit polynomial coefficients:

[ -1.183e-01, 1.050e+00]

Correlation 33 - TEMP - kit BdP\_8d5ba45f sensor type **BME280** with kit BdP\_8d5ba45f sensor type **DHT22**:



nr samples 122, min=14.50, max=19.71

avg=16.15, std dev= 1.14

**R-squared:**

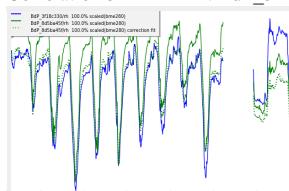
**0.9775**

Best fit polynomial coefficients:

[ -6.783e-01, 1.014e+00]

## Measurement RH correlation key values

Correlation 34 - RH - kit BdP\_3f18c330 sensor type **BME280** with kit BdP\_8d5ba45f sensor type **BME280**:



nr samples 1209, min=32.99, max=77.15

avg=63.62, std dev= 9.23

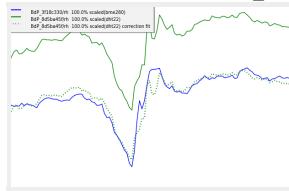
**R-squared:**

**0.7546**

Best fit polynomial coefficients:

[ 7.507e+00, 8.096e-01]

Correlation 35 - RH - kit BdP\_3f18c330 sensor type **BME280** with kit BdP\_8d5ba45f sensor type **DHT22**:



nr samples 122, min=59.69, max=77.38

avg=72.60, std dev= 3.91

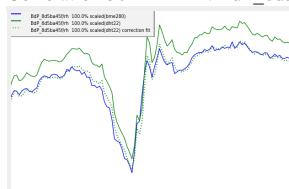
**R-squared:**

**0.8965**

Best fit polynomial coefficients:

[ -3.808e+00, 9.135e-01]

Correlation 36 - RH - kit BdP\_8d5ba45f sensor type **BME280** with kit BdP\_8d5ba45f sensor type **DHT22**:



nr samples 122, min=59.71, max=77.53

avg=72.62, std dev= 3.95

**R-squared:**

**0.9730**

Best fit polynomial coefficients:

[ 2.502e+00, 9.351e-01]

## Measurement PHA correlation key values

Correlation 37 - PHA - kit BdP\_3f18c330 sensor type **BME280** with kit BdP\_8d5ba45f sensor type **BME280**:

nr samples 1209, min=101076.39, max=102289.84

avg=101787.23, std dev=283.11

**R-squared:**

**0.9993**

Best fit polynomial coefficients:

[ 3.021e+02, 9.966e-01]

# Sensor dylos@BdP\_33040d54 with sensor ppd42ns@BdP\_33040d54

## correlation report for pm10 (raw) measurements

Correlation details of project BdP sensor kit ID 33040d54 with project BdP sensor kit ID 33040d54

Date of correlation report: Mon Oct 2 16:33:04 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): ppd42ns, dylos

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Database table BdP\_33040d54 sensor (column) pm10: 1344 db records, deleted 0 NaN records.

Auto interval samples is (re)set to 3372 (minimal- 50% -maximal)

Database table BdP\_33040d54 sensor (column) pm10\_pcsqf: 402 db records, deleted 0 NaN records.

Collected 783 values in sample time frame (56m/12s) for the graph. Skipped 561 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 56m:12s.

Data from table/sheet BdP\_33040d54, sensor (column) pm10\_pcsqf:

number 783, min= 1.00, max=327.00

avg=22.15, std dev=29.72

R-squared ( $R^2$ ) with BdP\_33040d54/pm10\_pcsqf: 0.0004

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_33040d54/pm10 (ppd42ns)-> best fit coefficients:

2.953e+02, -4.047e-01

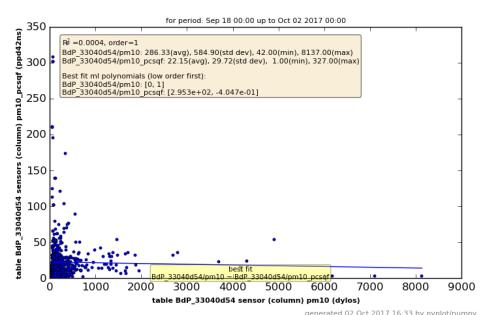
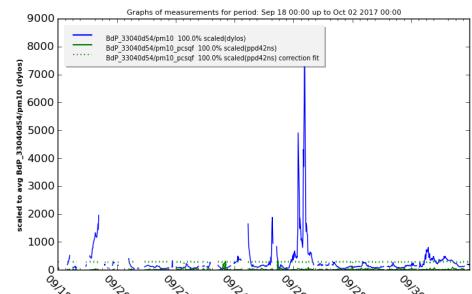
Statistical summary linear regression for BdP\_33040d54/pm10 with [BdP\_33040d54/pm10\_pcsqf]:

#### OLS Regression Results

Dep. Variable:	BdP_33040d54/pm10	R-squared:	0.000
Model:	OLS	Adj. R-squared:	-0.001
Method:	Least Squares	F-statistic:	0.3303
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	0.566
Time:	16:33:09	Log-Likelihood:	-6099.7
No. Observations:	783	AIC:	1.220e+04
Df Residuals:	781	BIC:	1.221e+04
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_33040d54/pm10_pcsqf	295.2888	26.096	11.315	0.000 244.062 346.515

Omnibus:	1139.431	Durbin-Watson:	0.262
Prob(Omnibus):	0.000	Jarque-Bera (JB):	249536.097
Skew:	8.212	Prob(JB):	0.00
Kurtosis:	88.900	Cond. No.	46.2



# Sensor dylos@BdP\_33040d54 with sensor pms7003@BdP\_3f18c330

## correlation report for pm10 (raw) measurements

Correlation details of project BdP sensor kit ID 33040d54 with project BdP sensor kit ID 3f18c330

Date of correlation report: Mon Oct 2 16:33:13 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): dylos, pms7003

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Database table BdP\_33040d54 sensor (column) pm10: 1344 db records, deleted 0 NaN records.

Database table BdP\_3f18c330 sensor (column) pm10\_atm: 185 db records, deleted 0 NaN records.

Collected 185 values in sample time frame (15m/0s) for the graph. Skipped 1159 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 15m:0s.

Data from table/sheet BdP\_3f18c330, sensor (column) pm10\_atm:

number 185, min= 5.86, max=80.38

avg=24.96, std dev=15.20

R-squared ( $R^2$ ) with BdP\_3f18c330/pm10\_atm: 0.3919

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_33040d54/pm10 (pms7003)-> best fit coefficients:

1.321e+02, 4.478e+00

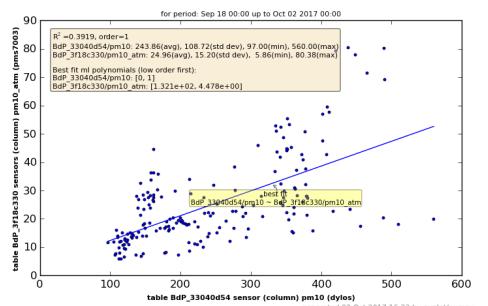
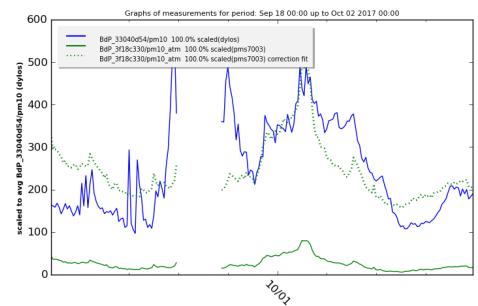
Statistical summary linear regression for BdP\_33040d54/pm10 with [BdP\_3f18c330/pm10\_atm]:

#### OLS Regression Results

Dep. Variable:	BdP_33040d54/pm10	R-squared:	0.392
Model:	OLS	Adj. R-squared:	0.389
Method:	Least Squares	F-statistic:	117.9
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	1.60e-21
Time:	16:33:14	Log-Likelihood:	-1083.9
No. Observations:	185	AIC:	2172.
Df Residuals:	183	BIC:	2178.
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_3f18c330/pm10_atm	132.0669	12.052	10.958	0.000 108.288 155.845

Omnibus:	34.587	Durbin-Watson:	0.225
Prob(Omnibus):	0.000	Jarque-Bera (JB):	51.858
Skew:	1.033	Prob(JB):	5.48e-12
Kurtosis:	4.568	Cond. No.	56.3



# Sensor dylos@BdP\_33040d54 with sensor sds011@BdP\_3f18c330

## correlation report for pm10 (raw) measurements

Correlation details of project BdP sensor kit ID 33040d54 with project BdP sensor kit ID 3f18c330

Date of correlation report: Mon Oct 2 16:33:16 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): sds011, dylos

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Database table BdP\_33040d54 sensor (column) pm10: 1344 db records, deleted 0 NaN records.

Auto interval samples is (re)set to 1004 (avg+2\*stddev)

Database table BdP\_3f18c330 sensor (column) pm10: 1208 db records, deleted 0 NaN records.

Collected 1208 values in sample time frame (16m/44s) for the graph. Skipped 136 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 16m:44s.

Data from table/sheet BdP\_3f18c330, sensor (column) pm10:

number 1208, min= 5.00, max=248.88

avg=58.85, std dev=42.29

R-squared ( $R^2$ ) with BdP\_3f18c330/pm10: 0.2041

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_33040d54/pm10 (sds011)-> best fit coefficients:

-5.290e+01, 6.425e+00

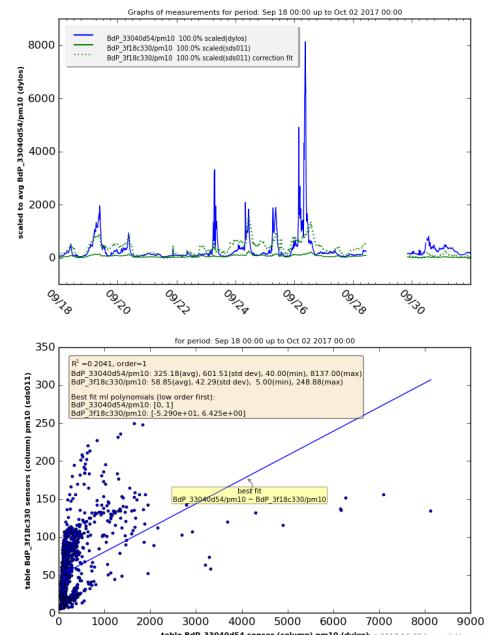
Statistical summary linear regression for BdP\_33040d54/pm10 with ['BdP\_3f18c330/pm10']:

### OLS Regression Results

Dep. Variable:	BdP_33040d54/pm10	R-squared:	0.204
Model:	OLS	Adj. R-squared:	0.203
Method:	Least Squares	F-statistic:	309.2
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	8.44e-62
Time:	16:33:16	Log-Likelihood:	-9306.7
No. Observations:	1208	AIC:	1.862e+04
Df Residuals:	1206	BIC:	1.863e+04
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_3f18c330/pm10	-52.9049	26.477	1.998	0.046 -104.851 -0.959

Omnibus:	1611.207	Durbin-Watson:	0.236
Prob(Omnibus):	0.000	Jarque-Bera (JB):	283110.066
Skew:	7.274	Prob(JB):	0.00
Kurtosis:	76.573	Cond. No.	124.



# Sensor dylos@BdP\_33040d54 with sensor pms7003@BdP\_8d5ba45f

## correlation report for pm10 (raw) measurements

Correlation details of project BdP sensor kit ID 33040d54 with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:33:18 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): dylos, pms7003

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Database table BdP\_33040d54 sensor (column) pm10: 1344 db records, deleted 0 NaN records.

Auto interval samples is (re)set to 951 (avg+2\*stddev)

Database table BdP\_8d5ba45f sensor (column) pm10\_atm: 1210 db records, deleted 0 NaN records.

Collected 1210 values in sample time frame (15m/51s) for the graph. Skipped 134 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 15m:51s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) pm10\_atm:

number 1210, min= 6.38, max=206.57

avg=86.60, std dev=45.96

R-squared ( $R^2$ ) with BdP\_8d5ba45f/pm10\_atm: 0.0944

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_33040d54/pm10 (pms7003)-> best fit coefficients:

-2.279e+01, 4.019e+00

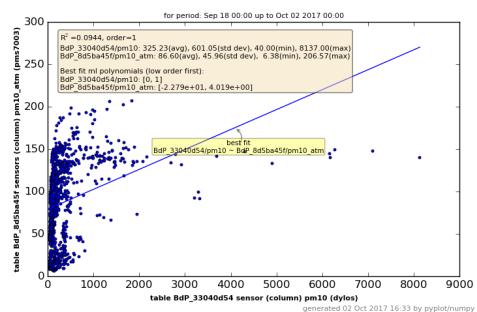
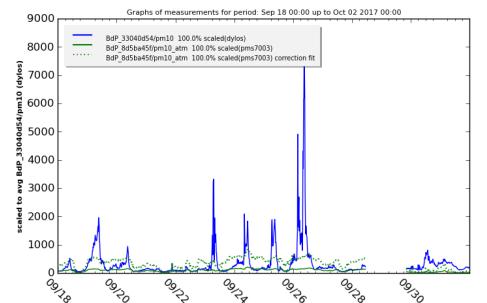
Statistical summary linear regression for BdP\_33040d54/pm10 with ['BdP\_8d5ba45f/pm10\_atm']:

#### OLS Regression Results

Dep. Variable:	BdP_33040d54/pm10	R-squared:	0.094
Model:	OLS	Adj. R-squared:	0.094
Method:	Least Squares	F-statistic:	126.0
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	7.13e-28
Time:	16:33:19	Log-Likelihood:	-9399.3
No. Observations:	1210	AIC:	1.880e+04
Df Residuals:	1208	BIC:	1.881e+04
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_8d5ba45f/pm10_atm	-22.7929	35.106	-0.649	0.516 -91.668 46.082

Omnibus:	1579.087	Durbin-Watson:	0.211
Prob(Omnibus):	0.000	Jarque-Bera (JB):	246780.994
Skew:	7.030	Prob(JB):	0.00
Kurtosis:	71.536	Cond. No.	209.



# Sensor dylos@BdP\_33040d54 with sensor sds011@BdP\_8d5ba45f

## correlation report for pm10 (raw) measurements

Correlation details of project BdP sensor kit ID 33040d54 with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:33:20 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): sds011, dylos

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Database table BdP\_33040d54 sensor (column) pm10: 1344 db records, deleted 0 NaN records.

Auto interval samples is (re)set to 1004 (avg+2\*stddev)

Database table BdP\_8d5ba45f sensor (column) pm10: 1209 db records, deleted 0 NaN records.

Collected 1209 values in sample time frame (16m/44s) for the graph. Skipped 135 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 16m:44s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) pm10:

number 1209, min= 6.00, max=402.25

avg=82.89, std dev=69.53

R-squared ( $R^2$ ) with BdP\_8d5ba45f/pm10: 0.2916

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_33040d54/pm10 (sds011)-> best fit coefficients:

-6.197e+01, 4.669e+00

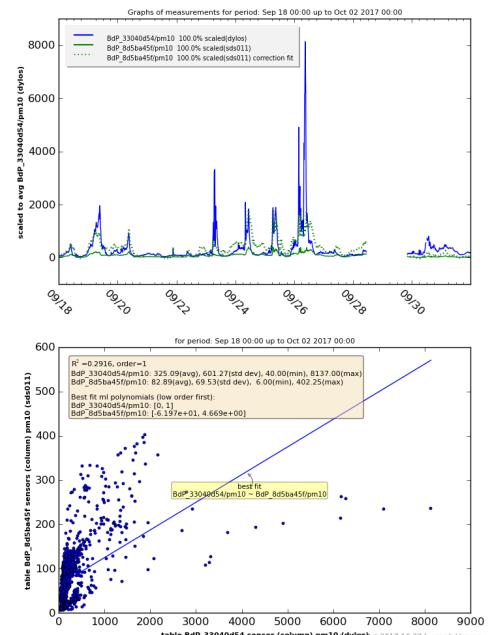
Statistical summary linear regression for BdP\_33040d54/pm10 with ['BdP\_8d5ba45f/pm10']:

#### OLS Regression Results

Dep. Variable:	BdP_33040d54/pm10	R-squared:	0.292
Model:	OLS	Adj. R-squared:	0.291
Method:	Least Squares	F-statistic:	496.9
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	1.86e-92
Time:	16:33:21	Log-Likelihood:	-9243.5
No. Observations:	1209	AIC:	1.849e+04
Df Residuals:	1207	BIC:	1.850e+04
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_8d5ba45f/pm10	-61.9747	22.665	-2.734	0.006 -106.443 -17.507

Omnibus:	1667.479	Durbin-Watson:	0.279
Prob(Omnibus):	0.000	Jarque-Bera (JB):	346542.558
Skew:	7.686	Prob(JB):	0.00
Kurtosis:	84.504	Cond. No.	168.



# Sensor ppd42ns@BdP\_33040d54 with sensor pms7003@BdP\_3f18c330

## correlation report for pm10 (raw) measurements

Correlation details of project BdP sensor kit ID 33040d54 with project BdP sensor kit ID 3f18c330

Date of correlation report: Mon Oct 2 16:33:22 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): ppd42ns, pms7003

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Auto interval samples is (re)set to 3372 (minimal- 50% -maximal)

Database table BdP\_33040d54 sensor (column) pm10\_pcsqf: 402 db records, deleted 0 NaN records.

Database table BdP\_3f18c330 sensor (column) pm10\_atm: 51 db records, deleted 0 NaN records.

Collected 86 values in sample time frame (56m/12s) for the graph. Skipped 316 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 56m:12s.

Data from table/sheet BdP\_3f18c330, sensor (column) pm10\_atm:

number 86, min= 6.39, max=77.29

avg=23.87, std dev=14.83

R-squared ( $R^2$ ) with BdP\_3f18c330/pm10\_atm: 0.0108

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_33040d54/pm10\_pcsqf (pms7003)-> best fit coefficients:

2.409e+01, -1.416e-01

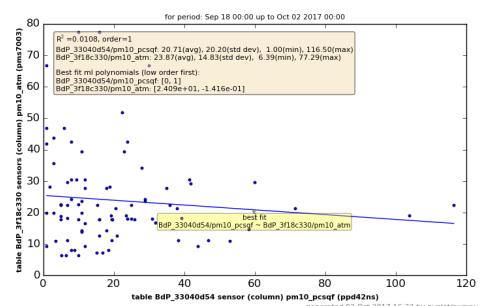
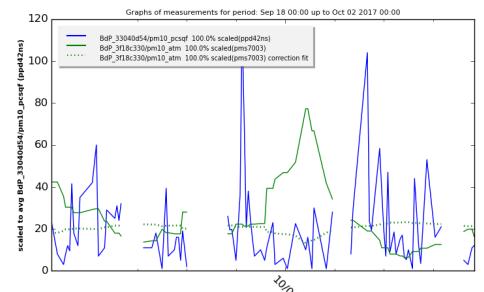
Statistical summary linear regression for BdP\_33040d54/pm10\_pcsqf with ['BdP\_3f18c330/pm10\_atm']:

### OLS Regression Results

Dep. Variable:	BdP_33040d54/pm10_pcsqf	R-squared:	0.011
Model:	OLS	Adj. R-squared:	-0.001
Method:	Least Squares	F-statistic:	0.9180
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	0.341
Time:	16:33:23	Log-Likelihood:	-380.05
No. Observations:	86	AIC:	764.1
Df Residuals:	84	BIC:	769.0
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]		
BdP_3f18c330/pm10_atm	24.0852	4.153	5.799	0.000	15.826	32.344

Omnibus:	62.120	Durbin-Watson:	1.544
Prob(Omnibus):	0.000	Jarque-Bera (JB):	274.849
Skew:	2.374	Prob(JB):	2.08e-60
Kurtosis:	10.359	Cond. No.	53.3



# Sensor ppd42ns@BdP\_33040d54 with sensor sds011@BdP\_3f18c330

## correlation report for pm10 (raw) measurements

Correlation details of project BdP sensor kit ID 33040d54 with project BdP sensor kit ID 3f18c330

Date of correlation report: Mon Oct 2 16:33:24 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): sds011, ppd42ns

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Auto interval samples is (re)set to 3372 (minimal- 50% -maximal)

Database table BdP\_33040d54 sensor (column) pm10\_pcsqf: 402 db records, deleted 0 NaN records.

Database table BdP\_3f18c330 sensor (column) pm10: 325 db records, deleted 0 NaN records.

Collected 341 values in sample time frame (56m/12s) for the graph. Skipped 61 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 56m:12s.

Data from table/sheet BdP\_3f18c330, sensor (column) pm10:

number 341, min= 6.89, max=213.36

avg=55.40, std dev=43.47

R-squared ( $R^2$ ) with BdP\_3f18c330/pm10: 0.0002

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_33040d54/pm10\_pcsqf (sds011)-> best fit coefficients:

2.292e+01, 1.336e-02

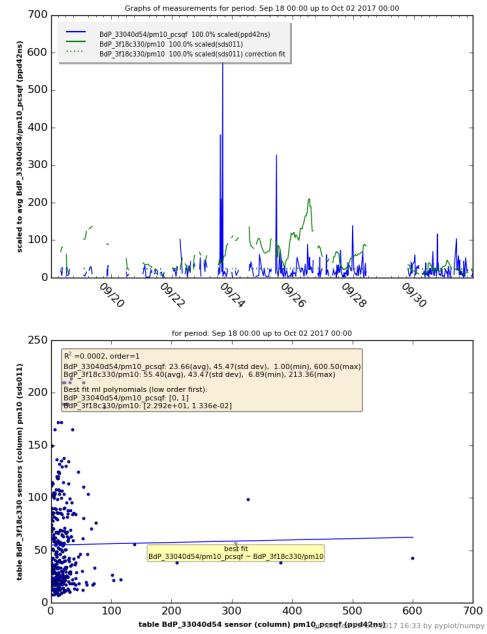
Statistical summary linear regression for BdP\_33040d54/pm10\_pcsqf with ['BdP\_3f18c330/pm10']:

### OLS Regression Results

Dep. Variable:	BdP_33040d54/pm10_pcsqf	R-squared:	0.000
Model:	OLS	Adj. R-squared:	-0.003
Method:	Least Squares	F-statistic:	0.05529
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	0.814
Time:	16:33:25	Log-Likelihood:	-1785.4
No. Observations:	341	AIC:	3575.
Df Residuals:	339	BIC:	3583.
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_3f18c330/pm10	22.9245	4.000	5.731	0.000 15.056 30.793

Omnibus:	543.521	Durbin-Watson:	2.006
Prob(Omnibus):	0.000	Jarque-Bera (JB):	122276.422
Skew:	8.605	Prob(JB):	0.00
Kurtosis:	94.158	Cond. No.	114.



# Sensor ppd42ns@BdP\_33040d54 with sensor pms7003@BdP\_8d5ba45f

## correlation report for pm10 (raw) measurements

Correlation details of project BdP sensor kit ID 33040d54 with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:33:27 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): ppd42ns, pms7003

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Auto interval samples is (re)set to 3372 (minimal- 50% -maximal)

Database table BdP\_33040d54 sensor (column) pm10\_pcsqf: 402 db records, deleted 0 NaN records.

Database table BdP\_8d5ba45f sensor (column) pm10\_atm: 325 db records, deleted 0 NaN records.

Collected 343 values in sample time frame (56m/12s) for the graph. Skipped 59 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 56m:12s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) pm10\_atm:

number 343, min= 6.93, max=194.25

avg=80.31, std dev=48.01

R-squared ( $R^2$ ) with BdP\_8d5ba45f/pm10\_atm: 0.0022

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_33040d54/pm10\_pcsqf (pms7003)-> best fit coefficients:

2.018e+01, 4.400e-02

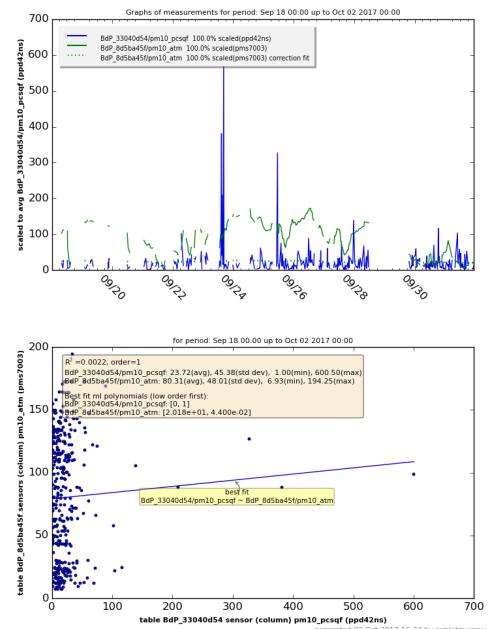
Statistical summary linear regression for BdP\_33040d54/pm10\_pcsqf with ['BdP\_8d5ba45f/pm10\_atm']:

#### OLS Regression Results

Dep. Variable:	BdP_33040d54/pm10_pcsqf	R-squared:	0.002
Model:	OLS	Adj. R-squared:	-0.001
Method:	Least Squares	F-statistic:	0.7408
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	0.390
Time:	16:33:27	Log-Likelihood:	-1794.9
No. Observations:	343	AIC:	3594.
Df Residuals:	341	BIC:	3601.
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_8d5ba45f/pm10_atm	20.1823	4.784	4.219	0.000 10.773 29.591

Omnibus:	545.540	Durbin-Watson:	2.013
Prob(Omnibus):	0.000	Jarque-Bera (JB):	122568.630
Skew:	8.580	Prob(JB):	0.00
Kurtosis:	94.004	Cond. No.	182.



# Sensor ppd42ns@BdP\_33040d54 with sensor sds011@BdP\_8d5ba45f

## correlation report for pm10 (raw) measurements

Correlation details of project BdP sensor kit ID 33040d54 with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:33:29 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): sds011, ppd42ns

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Auto interval samples is (re)set to 3372 (minimal- 50% -maximal)

Database table BdP\_33040d54 sensor (column) pm10\_pcsqf: 402 db records, deleted 0 NaN records.

Database table BdP\_8d5ba45f sensor (column) pm10: 326 db records, deleted 0 NaN records.

Collected 343 values in sample time frame (56m/12s) for the graph. Skipped 59 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 56m:12s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) pm10:

number 343, min= 8.29, max=329.00

avg=77.68, std dev=66.92

R-squared ( $R^2$ ) with BdP\_8d5ba45f/pm10: 0.0004

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_33040d54/pm10\_pcsqf (sds011)-> best fit coefficients:

2.265e+01, 1.367e-02

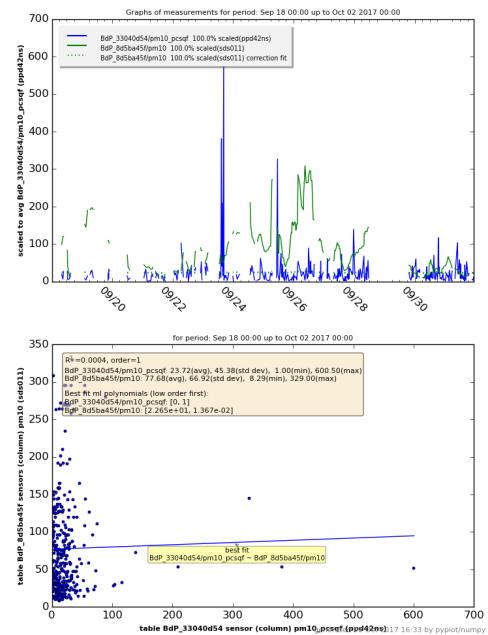
Statistical summary linear regression for BdP\_33040d54/pm10\_pcsqf with ['BdP\_8d5ba45f/pm10']:

### OLS Regression Results

Dep. Variable:	BdP_33040d54/pm10_pcsqf	R-squared:	0.000
Model:	OLS	Adj. R-squared:	-0.003
Method:	Least Squares	F-statistic:	0.1387
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	0.710
Time:	16:33:29	Log-Likelihood:	-1795.2
No. Observations:	343	AIC:	3594.
Df Residuals:	341	BIC:	3602.
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_8d5ba45f/pm10	22.6542	3.764	6.019	0.000
				15.251 30.057

Omnibus:	546.681	Durbin-Watson:	2.008
Prob(Omnibus):	0.000	Jarque-Bera (JB):	123801.142
Skew:	8.613	Prob(JB):	0.00
Kurtosis:	94.465	Cond. No.	157.



# Sensor pms7003@BdP\_3f18c330 with sensor sds011@BdP\_3f18c330

## correlation report for pm10 (raw) measurements

Correlation details of project BdP sensor kit ID 3f18c330 with project BdP sensor kit ID 3f18c330

Date of correlation report: Mon Oct 2 16:33:31 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): sds011, pms7003

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Database table BdP\_3f18c330 sensor (column) pm10\_atm: 185 db records, deleted 0 NaN records.

Auto interval samples is (re)set to 1004 (avg+2\*stddev)

Database table BdP\_3f18c330 sensor (column) pm10: 1208 db records, deleted 0 NaN records.

Collected 184 values in sample time frame (16m/44s) for the graph. Skipped 1 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 16m:44s.

Data from table/sheet BdP\_3f18c330, sensor (column) pm10:

number 184, min= 6.12, max=52.00

avg=19.58, std dev= 8.48

R-squared ( $R^2$ ) with BdP\_3f18c330/pm10: 0.8067

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_3f18c330/pm10\_atm (sds011)-> best fit coefficients:

-6.645e+00, 1.614e+00

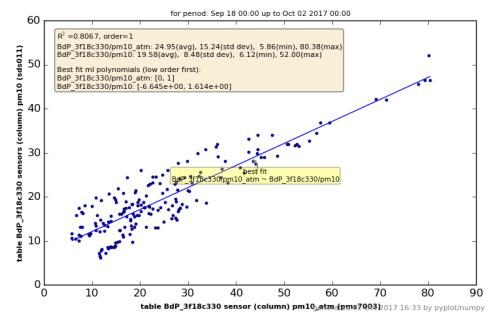
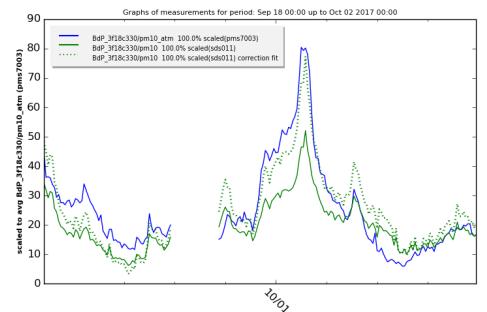
Statistical summary linear regression for BdP\_3f18c330/pm10\_atm with ['BdP\_3f18c330/pm10']:

### OLS Regression Results

Dep. Variable:	BdP_3f18c330/pm10_atm	R-squared:	0.807
Model:	OLS	Adj. R-squared:	0.806
Method:	Least Squares	F-statistic:	759.5
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	7.38e-67
Time:	16:33:32	Log-Likelihood:	-611.07
No. Observations:	184	AIC:	1226.
Df Residuals:	182	BIC:	1233.
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_3f18c330/pm10	-6.6454	1.249	-5.319	0.000 -9.111 4.180

Omnibus:	19.055	Durbin-Watson:	0.187
Prob(Omnibus):	0.000	Jarque-Bera (JB):	8.200
Skew:	-0.286	Prob(JB):	0.0166
Kurtosis:	2.139	Cond. No.	53.8



# Sensor pms7003@BdP\_3f18c330 with sensor pms7003@BdP\_8d5ba45f

## correlation report for pm10 (raw) measurements

Correlation details of project BdP sensor kit ID 3f18c330 with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:33:33 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): pms7003

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Database table BdP\_3f18c330 sensor (column) pm10\_atm: 185 db records, deleted 0 NaN records.

Auto interval samples is (re)set to 951 (avg+2\*stddev)

Database table BdP\_8d5ba45f sensor (column) pm10\_atm: 1210 db records, deleted 0 NaN records.

Collected 184 values in sample time frame (15m/51s) for the graph. Skipped 1 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 15m:51s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) pm10\_atm:

number 184, min= 6.38, max=87.50

avg=26.14, std dev=16.43

R-squared ( $R^2$ ) with BdP\_8d5ba45f/pm10\_atm: 0.9867

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_3f18c330/pm10\_atm (pms7003)-> best fit coefficients:

8.572e-01, 9.215e-01

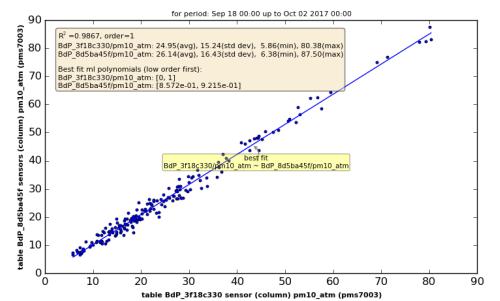
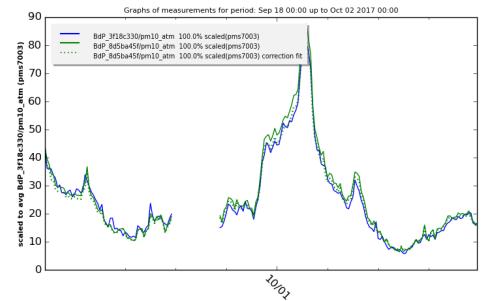
Statistical summary linear regression for BdP\_3f18c330/pm10\_atm with ['BdP\_8d5ba45f/pm10\_atm']:

#### OLS Regression Results

Dep. Variable:	BdP_3f18c330/pm10_atm	R-squared:	0.987
Model:	OLS	Adj. R-squared:	0.987
Method:	Least Squares	F-statistic:	1.352e+04
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	9.58e-173
Time:	16:33:34	Log-Likelihood:	-364.68
No. Observations:	184	AIC:	733.4
Df Residuals:	182	BIC:	739.8
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_8d5ba45f/pm10_atm	0.8572	0.245	3.504	0.001 0.374 1.340

Omnibus:	2.066	Durbin-Watson:	1.325
Prob(Omnibus):	0.356	Jarque-Bera (JB):	2.117
Skew:	0.248	Prob(JB):	0.347
Kurtosis:	2.827	Cond. No.	58.1



# Sensor pms7003@BdP\_3f18c330 with sensor sds011@BdP\_8d5ba45f

## correlation report for pm10 (raw) measurements

Correlation details of project BdP sensor kit ID 3f18c330 with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:33:35 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): sds011, pms7003

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Database table BdP\_3f18c330 sensor (column) pm10\_atm: 185 db records, deleted 0 NaN records.

Auto interval samples is (re)set to 1004 (avg+2\*stddev)

Database table BdP\_8d5ba45f sensor (column) pm10: 1209 db records, deleted 0 NaN records.

Collected 184 values in sample time frame (16m/44s) for the graph. Skipped 1 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 16m:44s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) pm10:

number 184, min= 6.86, max=68.75

avg=26.09, std dev=13.19

R-squared ( $R^2$ ) with BdP\_8d5ba45f/pm10: 0.8007

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_3f18c330/pm10\_atm (sds011)-> best fit coefficients:

-2.009e+00, 1.033e+00

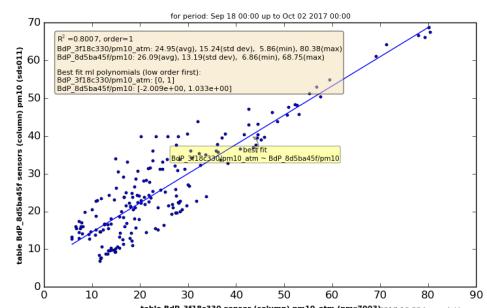
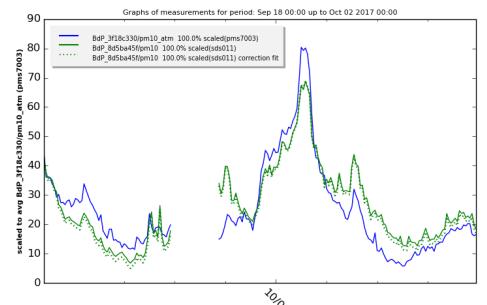
Statistical summary linear regression for BdP\_3f18c330/pm10\_atm with ['BdP\_8d5ba45f/pm10']:

### OLS Regression Results

Dep. Variable:	BdP_3f18c330/pm10_atm	R-squared:	0.801
Model:	OLS	Adj. R-squared:	0.800
Method:	Least Squares	F-statistic:	731.3
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	1.18e-65
Time:	16:33:36	Log-Likelihood:	-613.86
No. Observations:	184	AIC:	1232.
Df Residuals:	182	BIC:	1238.
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_8d5ba45f/pm10	-2.0089	1.117	-1.798	0.074 -4.213 0.195

Omnibus:	8.202	Durbin-Watson:	0.215
Prob(Omnibus):	0.017	Jarque-Bera (JB):	6.176
Skew:	-0.335	Prob(JB):	0.0456
Kurtosis:	2.403	Cond. No.	64.8



# Sensor sds011@BdP\_3f18c330 with sensor pms7003@BdP\_8d5ba45f

## correlation report for pm10 (raw) measurements

Correlation details of project BdP sensor kit ID 3f18c330 with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:33:37 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): sds011, pms7003

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Auto interval samples is (re)set to 1004 (avg+2\*stddev)

Database table BdP\_3f18c330 sensor (column) pm10: 1208 db records, deleted 0 NaN records.

Auto interval samples is (re)set to 1064 (avg+2\*stddev)

Database table BdP\_8d5ba45f sensor (column) pm10\_atm: 1086 db records, deleted 0 NaN records.

Collected 1208 values in sample time frame (17m/44s) for the graph.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 17m:44s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) pm10\_atm:

number 1208, min= 5.75, max=209.88

avg=86.65, std dev=45.94

R-squared ( $R^2$ ) with BdP\_8d5ba45f/pm10\_atm: 0.8323

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_3f18c330/pm10 (pms7003)-> best fit coefficients:

-1.393e+01, 8.399e-01

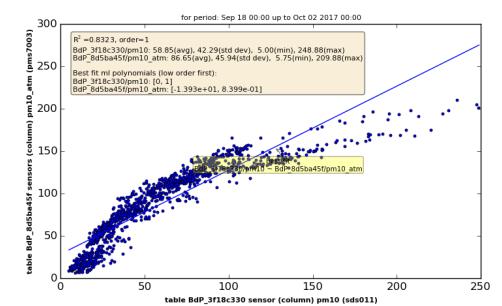
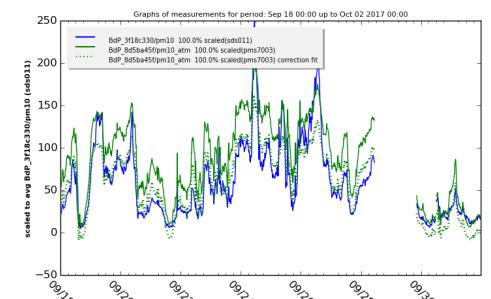
Statistical summary linear regression for BdP\_3f18c330/pm10 with ['BdP\_8d5ba45f/pm10\_atm']:

### OLS Regression Results

Dep. Variable:	BdP_3f18c330/pm10	R-squared:	0.832
Model:	OLS	Adj. R-squared:	0.832
Method:	Least Squares	F-statistic:	5983.
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	0.00
Time:	16:33:38	Log-Likelihood:	-5159.3
No. Observations:	1208	AIC:	1.032e+04
Df Residuals:	1206	BIC:	1.033e+04
Df Model:	1		

	coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_8d5ba45f/pm10_atm	-13.9257	1.065	-13.078	0.000	-16.015 -11.837

Omnibus:	381.146	Durbin-Watson:	0.077
Prob(Omnibus):	0.000	Jarque-Bera (JB):	1248.868
Skew:	1.548	Prob(JB):	6.48e-272
Kurtosis:	6.902	Cond. No.	209.



# Sensor sds011@BdP\_3f18c330 with sensor sds011@BdP\_8d5ba45f

## correlation report for pm10 (raw) measurements

Correlation details of project BdP sensor kit ID 3f18c330 with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:33:39 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): sds011

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Auto interval samples is (re)set to 1004 (avg+2\*stddev)

Database table BdP\_3f18c330 sensor (column) pm10: 1208 db records, deleted 0 NaN records.

Auto interval samples is (re)set to 1064 (avg+2\*stddev)

Database table BdP\_8d5ba45f sensor (column) pm10: 1086 db records, deleted 0 NaN records.

Collected 1208 values in sample time frame (17m/44s) for the graph.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 17m:44s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) pm10:

number 1208, min= 6.62, max=398.12

avg=83.01, std dev=69.84

R-squared ( $R^2$ ) with BdP\_8d5ba45f/pm10: 0.8905

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_3f18c330/pm10 (sds011)-> best fit coefficients:

1.141e+01, 5.715e-01

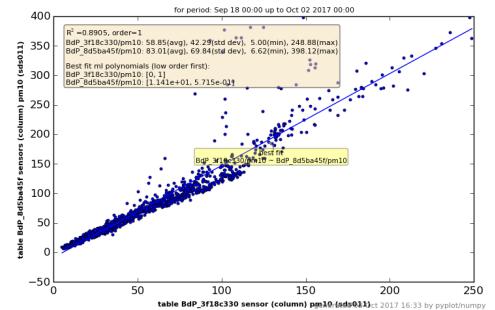
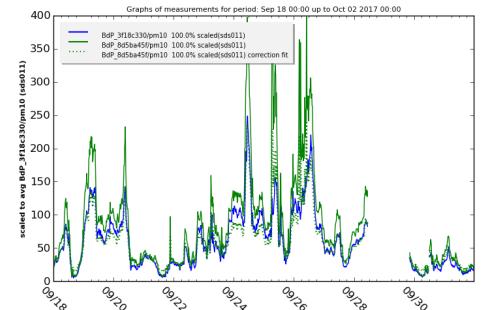
Statistical summary linear regression for BdP\_3f18c330/pm10 with ['BdP\_8d5ba45f/pm10']:

### OLS Regression Results

Dep. Variable:	BdP_3f18c330/pm10	R-squared:	0.891
Model:	OLS	Adj. R-squared:	0.890
Method:	Least Squares	F-statistic:	9809.
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	0.00
Time:	16:33:40	Log-Likelihood:	-4901.6
No. Observations:	1208	AIC:	9807.
Df Residuals:	1206	BIC:	9817.
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_8d5ba45f/pm10	11.4060	0.626	18.221	0.000 10.178 12.634

Omnibus:	1015.541	Durbin-Watson:	0.324
Prob(Omnibus):	0.000	Jarque-Bera (JB):	39748.183
Skew:	-3.645	Prob(JB):	0.00
Kurtosis:	30.139	Cond. No.	169.



# Sensor pms7003@BdP\_8d5ba45f with sensor sds011@BdP\_8d5ba45f

## correlation report for pm10 (raw) measurements

Correlation details of project BdP sensor kit ID 8d5ba45f with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:33:41 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): sds011, pms7003

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Auto interval samples is (re)set to 951 (avg+2\*stddev)

Database table BdP\_8d5ba45f sensor (column) pm10\_atm: 1210 db records, deleted 0 NaN records.

Auto interval samples is (re)set to 1007 (avg+2\*stddev)

Database table BdP\_8d5ba45f sensor (column) pm10: 1146 db records, deleted 0 NaN records.

Collected 1208 values in sample time frame (16m/47s) for the graph. Skipped 2 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 16m:47s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) pm10:

number 1208, min= 5.88, max=403.50

avg=82.94, std dev=69.81

R-squared ( $R^2$ ) with BdP\_8d5ba45f/pm10: 0.7042

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_8d5ba45f/pm10\_atm (sds011)-> best fit coefficients:

4.077e+01, 5.526e-01

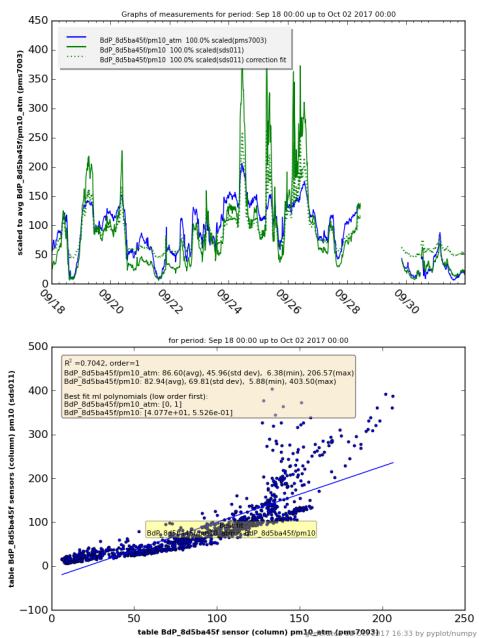
Statistical summary linear regression for BdP\_8d5ba45f/pm10\_atm with ['BdP\_8d5ba45f/pm10']:

### OLS Regression Results

Dep. Variable:	BdP_8d5ba45f/pm10_atm	R-squared:	0.704
Model:	OLS	Adj. R-squared:	0.704
Method:	Least Squares	F-statistic:	2871.
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	2.91e-321
Time:	16:33:42	Log-Likelihood:	-5602.5
No. Observations:	1208	AIC:	1.121e+04
Df Residuals:	1206	BIC:	1.122e+04
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_8d5ba45f/pm10	40.7746	1.118	36.474	0.000 38.581 42.968

Omnibus:	92.537	Durbin-Watson:	0.104
Prob(Omnibus):	0.000	Jarque-Bera (JB):	118.695
Skew:	-0.664	Prob(JB):	1.68e-26
Kurtosis:	3.771	Cond. No.	168.



# Sensor dylos@BdP\_33040d54 with sensor ppd42ns@BdP\_33040d54

## correlation report for pm25 (raw) measurements

Correlation details of project BdP sensor kit ID 33040d54 with project BdP sensor kit ID 33040d54

Date of correlation report: Mon Oct 2 16:33:44 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): ppd42ns, dylos

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Database table BdP\_33040d54 sensor (column) pm25: 1344 db records, deleted 0 NaN records.

Auto interval samples is (re)set to 999 (avg+2\*stddev)

Database table BdP\_33040d54 sensor (column) pm25\_pcsqf: 1342 db records, deleted 0 NaN records.

Collected 1342 values in sample time frame (16m/39s) for the graph. Skipped 2 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 16m:39s.

Data from table/sheet BdP\_33040d54, sensor (column) pm25\_pcsqf:

number 1342, min=131.38, max=1254.43

avg=336.84, std dev=114.12

R-squared ( $R^2$ ) with BdP\_33040d54/pm25\_pcsqf: 0.0892

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_33040d54/pm25 (ppd42ns)-> best fit coefficients:

1.998e+03, 1.702e+01

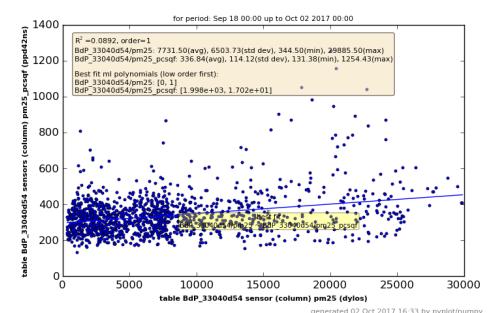
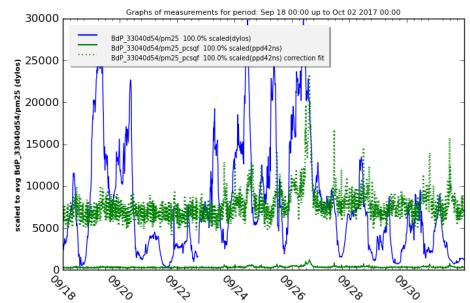
Statistical summary linear regression for BdP\_33040d54/pm25 with [BdP\_33040d54/pm25\_pcsqf]:

### OLS Regression Results

Dep. Variable:	BdP_33040d54/pm25	R-squared:	0.089
Model:	OLS	Adj. R-squared:	0.089
Method:	Least Squares	F-statistic:	131.2
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	4.76e-29
Time:	16:33:44	Log-Likelihood:	-13624.
No. Observations:	1342	AIC:	2.725e+04
Df Residuals:	1340	BIC:	2.726e+04
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_33040d54/pm25_pcsqf	1998.4714	528.433	3.782	0.000 961.826 3035.117

Omnibus:	211.259	Durbin-Watson:	0.108
Prob(Omnibus):	0.000	Jarque-Bera (JB):	317.702
Skew:	1.122	Prob(JB):	1.03e-69
Kurtosis:	3.806	Cond. No.	1.11e+03



# Sensor dylos@BdP\_33040d54 with sensor pms7003@BdP\_3f18c330

## correlation report for pm25 (raw) measurements

Correlation details of project BdP sensor kit ID 33040d54 with project BdP sensor kit ID 3f18c330

Date of correlation report: Mon Oct 2 16:33:46 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): dylos, pms7003

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Database table BdP\_33040d54 sensor (column) pm25: 1344 db records, deleted 0 NaN records.

Database table BdP\_3f18c330 sensor (column) pm25\_atm: 185 db records, deleted 0 NaN records.

Collected 185 values in sample time frame (15m/0s) for the graph. Skipped 1159 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 15m:0s.

Data from table/sheet BdP\_3f18c330, sensor (column) pm25\_atm:

number 185, min=1022.14, max=14664.75

avg=4608.93, std dev=2821.33

R-squared ( $R^2$ ) with BdP\_3f18c330/pm25\_atm: 0.2715

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

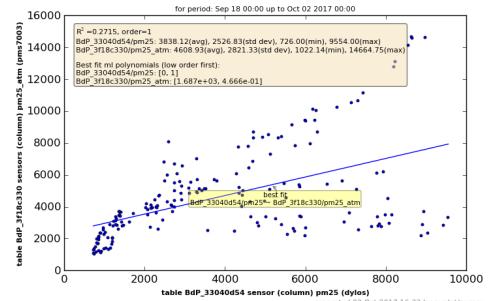
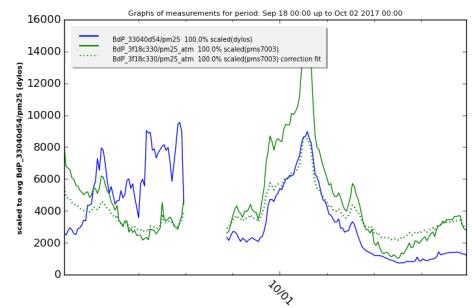
BdP\_33040d54/pm25 (pms7003)-> best fit coefficients:

1.687e+03, 4.666e-01

Statistical summary linear regression for BdP\_33040d54/pm25 with [BdP\_3f18c330/pm25\_atm]:

#### OLS Regression Results

Dep. Variable:	BdP_33040d54/pm25	R-squared:	0.271
Model:	OLS	Adj. R-squared:	0.267
Method:	Least Squares	F-statistic:	68.19
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	2.89e-14
Time:	16:33:47	Log-Likelihood:	-1682.6
No. Observations:	185	AIC:	3369.
Df Residuals:	183	BIC:	3376.
Df Model:	1		



coef std err t P>|t| [95.0% Conf. Int.]  
BdP\_3f18c330/pm25\_atm 1687.3994 305.370 5.526 0.000 1084.901 2289.898

Omnibus:	41.503	Durbin-Watson:	0.082
Prob(Omnibus):	0.000	Jarque-Bera (JB):	61.285
Skew:	1.340	Prob(JB):	4.92e-14
Kurtosis:	3.876	Cond. No.	1.04e+04

# Sensor dylos@BdP\_33040d54 with sensor sds011@BdP\_3f18c330

## correlation report for pm25 (raw) measurements

Correlation details of project BdP sensor kit ID 33040d54 with project BdP sensor kit ID 3f18c330

Date of correlation report: Mon Oct 2 16:33:48 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): sds011, dylos

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Database table BdP\_33040d54 sensor (column) pm25: 1344 db records, deleted 0 NaN records.

Auto interval samples is (re)set to 1004 (avg+2\*stddev)

Database table BdP\_3f18c330 sensor (column) pm25: 1208 db records, deleted 0 NaN records.

Collected 1208 values in sample time frame (16m/44s) for the graph. Skipped 136 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 16m:44s.

Data from table/sheet BdP\_3f18c330, sensor (column) pm25:

number 1208, min=733.25, max=34527.00

avg=9968.92, std dev=6786.83

R-squared ( $R^2$ ) with BdP\_3f18c330/pm25: 0.7386

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_33040d54/pm25 (sds011)-> best fit coefficients:

-1.812e+02, 8.409e-01

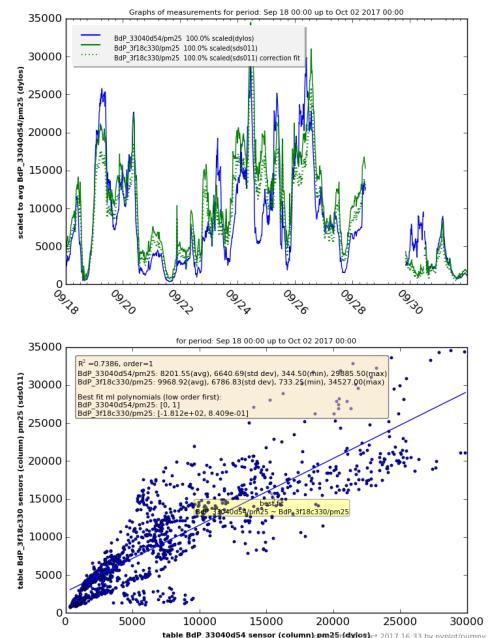
Statistical summary linear regression for BdP\_33040d54/pm25 with ['BdP\_3f18c330/pm25']:

### OLS Regression Results

Dep. Variable:	BdP_33040d54/pm25	R-squared:	0.739
Model:	OLS	Adj. R-squared:	0.738
Method:	Least Squares	F-statistic:	3407.
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	0.00
Time:	16:33:49	Log-Likelihood:	-11535.
No. Observations:	1208	AIC:	2.307e+04
Df Residuals:	1206	BIC:	2.308e+04
Df Model:	1		

coef std err t P>|t| [95.0% Conf. Int.]  
BdP\_3f18c330/pm25 -181.2310 173.739 -1.043 0.297 -522.096 159.634

Omnibus:	100.663	Durbin-Watson:	0.051
Prob(Omnibus):	0.000	Jarque-Bera (JB):	140.435
Skew:	0.664	Prob(JB):	3.20e-31
Kurtosis:	4.014	Cond. No.	2.14e+04



# Sensor dylos@BdP\_33040d54 with sensor pms7003@BdP\_8d5ba45f

## correlation report for pm25 (raw) measurements

Correlation details of project BdP sensor kit ID 33040d54 with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:33:50 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): dylos, pms7003

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Database table BdP\_33040d54 sensor (column) pm25: 1344 db records, deleted 0 NaN records.

Auto interval samples is (re)set to 951 (avg+2\*stddev)

Database table BdP\_8d5ba45f sensor (column) pm25\_atm: 1210 db records, deleted 0 NaN records.

Collected 1210 values in sample time frame (15m/51s) for the graph. Skipped 134 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 15m:51s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) pm25\_atm:

number 1210, min=1042.25, max=37171.86

avg=14836.14, std dev=7334.29

R-squared ( $R^2$ ) with BdP\_8d5ba45f/pm25\_atm: 0.5711

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_33040d54/pm25 (pms7003)-> best fit coefficients:

-1.942e+03, 6.838e-01

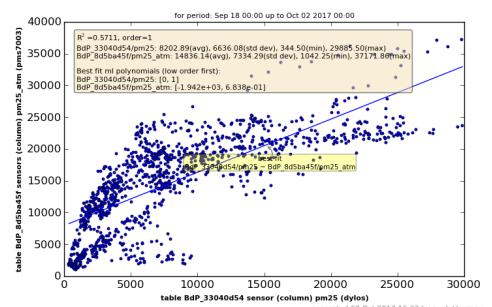
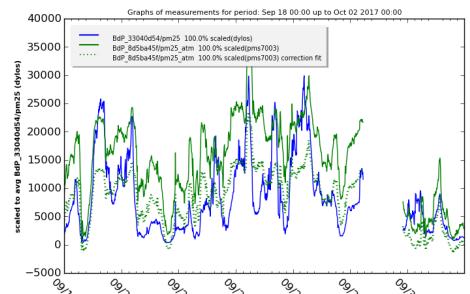
Statistical summary linear regression for BdP\_33040d54/pm25 with ['BdP\_8d5ba45f/pm25\_atm']:

### OLS Regression Results

Dep. Variable:	BdP_33040d54/pm25	R-squared:	0.571
Model:	OLS	Adj. R-squared:	0.571
Method:	Least Squares	F-statistic:	1609.
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	2.61e-224
Time:	16:33:51	Log-Likelihood:	-11853.
No. Observations:	1210	AIC:	2.371e+04
Df Residuals:	1208	BIC:	2.372e+04
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_8d5ba45f/pm25_atm	-1941.7346	282.156	-6.882	0.000
	-2495.305		-1388.164	

Omnibus:	110.076	Durbin-Watson:	0.038
Prob(Omnibus):	0.000	Jarque-Bera (JB):	138.927
Skew:	0.800	Prob(JB):	6.80e-31
Kurtosis:	3.439	Cond. No.	3.73e+04



# Sensor dylos@BdP\_33040d54 with sensor sds011@BdP\_8d5ba45f

## correlation report for pm25 (raw) measurements

Correlation details of project BdP sensor kit ID 33040d54 with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:33:52 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): sds011, dylos

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Database table BdP\_33040d54 sensor (column) pm25: 1344 db records, deleted 0 NaN records.

Auto interval samples is (re)set to 1004 (avg+2\*stddev)

Database table BdP\_8d5ba45f sensor (column) pm25: 1209 db records, deleted 0 NaN records.

Collected 1209 values in sample time frame (16m/44s) for the graph. Skipped 135 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 16m:44s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) pm25:

number 1209, min=1010.00, max=39234.25

avg=10807.58, std dev=7222.87

R-squared ( $R^2$ ) with BdP\_8d5ba45f/pm25: 0.7198

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_33040d54/pm25 (sds011)-> best fit coefficients:

-2.232e+02, 7.798e-01

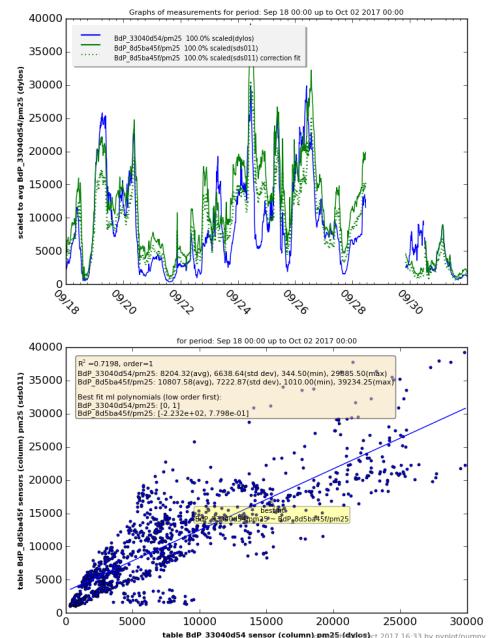
Statistical summary linear regression for BdP\_33040d54/pm25 with ['BdP\_8d5ba45f/pm25']:

### OLS Regression Results

Dep. Variable:	BdP_33040d54/pm25	R-squared:	0.720
Model:	OLS	Adj. R-squared:	0.720
Method:	Least Squares	F-statistic:	3101.
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	0.00
Time:	16:33:53	Log-Likelihood:	-11586.
No. Observations:	1209	AIC:	2.318e+04
Df Residuals:	1207	BIC:	2.319e+04
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_8d5ba45f/pm25	-223.2248	182.040	-1.226	0.220 -580.374 133.924

Omnibus:	67.692	Durbin-Watson:	0.050
Prob(Omnibus):	0.000	Jarque-Bera (JB):	96.806
Skew:	0.482	Prob(JB):	9.52e-22
Kurtosis:	3.997	Cond. No.	2.34e+04



# Sensor ppd42ns@BdP\_33040d54 with sensor pms7003@BdP\_3f18c330

## correlation report for pm25 (raw) measurements

Correlation details of project BdP sensor kit ID 33040d54 with project BdP sensor kit ID 3f18c330

Date of correlation report: Mon Oct 2 16:33:55 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): ppd42ns, pms7003

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Auto interval samples is (re)set to 999 (avg+2\*stddev)

Database table BdP\_33040d54 sensor (column) pm25\_pcsqf: 1342 db records, deleted 0 NaN records.

Database table BdP\_3f18c330 sensor (column) pm25\_atm: 167 db records, deleted 0 NaN records.

Collected 185 values in sample time frame (16m/39s) for the graph. Skipped 1157 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 16m:39s.

Data from table/sheet BdP\_3f18c330, sensor (column) pm25\_atm:

number 185, min=1066.88, max=14677.38

avg=4609.78, std dev=2812.02

R-squared ( $R^2$ ) with BdP\_3f18c330/pm25\_atm: 0.0200

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_33040d54/pm25\_pcsqf (pms7003)-> best fit coefficients:

3.551e+02, -4.648e-03

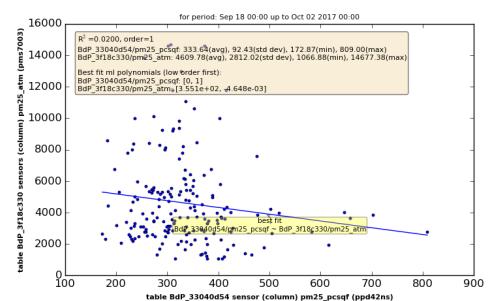
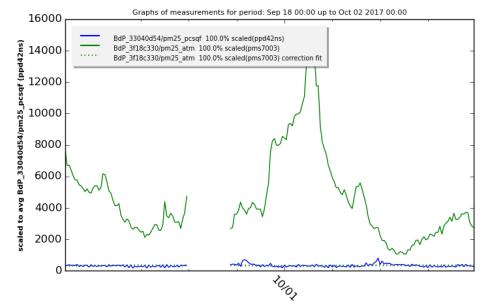
Statistical summary linear regression for BdP\_33040d54/pm25\_pcsqf with ['BdP\_3f18c330/pm25\_atm']:

### OLS Regression Results

Dep. Variable:	BdP_33040d54/pm25_pcsqf	R-squared:	0.020
Model:	OLS	Adj. R-squared:	0.015
Method:	Least Squares	F-statistic:	3.733
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	0.0549
Time:	16:33:55	Log-Likelihood:	-1098.0
No. Observations:	185	AIC:	2200.
Df Residuals:	183	BIC:	2207.
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_3f18c330/pm25_atm	355.0657	12.989	27.336	0.000 329.438 380.693

Omnibus:	76.720	Durbin-Watson:	1.339
Prob(Omnibus):	0.000	Jarque-Bera (JB):	285.880
Skew:	1.628	Prob(JB):	8.35e-63
Kurtosis:	8.147	Cond. No.	1.04e+04



# Sensor ppd42ns@BdP\_33040d54 with sensor sds011@BdP\_3f18c330

## correlation report for pm25 (raw) measurements

Correlation details of project BdP sensor kit ID 33040d54 with project BdP sensor kit ID 3f18c330

Date of correlation report: Mon Oct 2 16:33:57 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): sds011, ppd42ns

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Auto interval samples is (re)set to 999 (avg+2\*stddev)

Database table BdP\_33040d54 sensor (column) pm25\_pcsqf: 1342 db records, deleted 0 NaN records.

Auto interval samples is (re)set to 1121 (avg+2\*stddev)

Database table BdP\_3f18c330 sensor (column) pm25: 1090 db records, deleted 0 NaN records.

Collected 1207 values in sample time frame (18m/41s) for the graph. Skipped 135 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 18m:41s.

Data from table/sheet BdP\_3f18c330, sensor (column) pm25:

number 1207, min=739.38, max=34633.90

avg=9979.87, std dev=6781.47

R-squared ( $R^2$ ) with BdP\_3f18c330/pm25: 0.1602

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_33040d54/pm25\_pcsqf (sds011)-> best fit coefficients:

2.685e+02, 6.910e-03

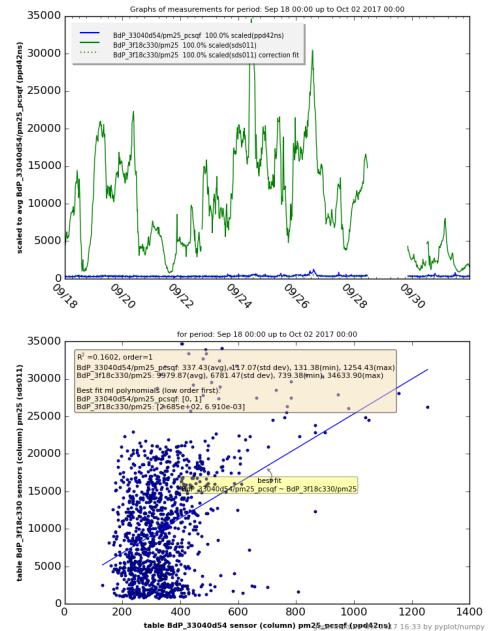
Statistical summary linear regression for BdP\_33040d54/pm25\_pcsqf with ['BdP\_3f18c330/pm25']:

#### OLS Regression Results

Dep. Variable:	BdP_33040d54/pm25_pcsqf	R-squared:	0.160
Model:	OLS	Adj. R-squared:	0.160
Method:	Least Squares	F-statistic:	229.9
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	1.15e-47
Time:	16:33:57	Log-Likelihood:	-7355.9
No. Observations:	1207	AIC:	1.472e+04
Df Residuals:	1205	BIC:	1.473e+04
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_3f18c330/pm25	268.4628	5.499	48.823	0.000 257.675 279.251

Omnibus:	529.286	Durbin-Watson:	1.045
Prob(Omnibus):	0.000	Jarque-Bera (JB):	3902.514
Skew:	1.867	Prob(JB):	0.00
Kurtosis:	10.978	Cond. No.	2.15e+04



# Sensor ppd42ns@BdP\_33040d54 with sensor pms7003@BdP\_8d5ba45f

## correlation report for pm25 (raw) measurements

Correlation details of project BdP sensor kit ID 33040d54 with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:33:59 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): ppd42ns, pms7003

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Auto interval samples is (re)set to 999 (avg+2\*stddev)

Database table BdP\_33040d54 sensor (column) pm25\_pcsqf: 1342 db records, deleted 0 NaN records.

Auto interval samples is (re)set to 1059 (avg+2\*stddev)

Database table BdP\_8d5ba45f sensor (column) pm25\_atm: 1091 db records, deleted 0 NaN records.

Collected 1208 values in sample time frame (17m/39s) for the graph. Skipped 134 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 17m:39s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) pm25\_atm:

number 1208, min=1082.33, max=37514.38

avg=14844.31, std dev=7338.39

R-squared ( $R^2$ ) with BdP\_8d5ba45f/pm25\_atm: 0.0894

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_33040d54/pm25\_pcsqf (pms7003)-> best fit coefficients:

2.667e+02, 4.769e-03

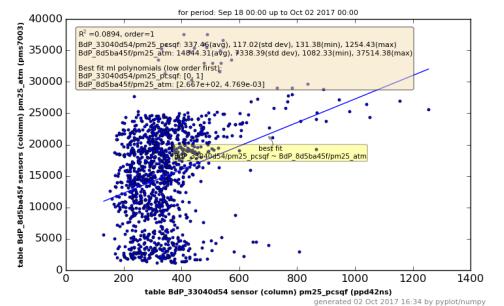
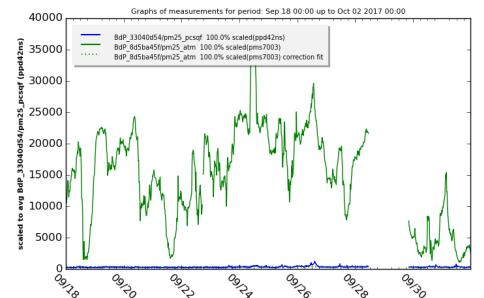
Statistical summary linear regression for BdP\_33040d54/pm25\_pcsqf with ['BdP\_8d5ba45f/pm25\_atm']:

#### OLS Regression Results

Dep. Variable:	BdP_33040d54/pm25_pcsqf	R-squared:	0.089
Model:	OLS	Adj. R-squared:	0.089
Method:	Least Squares	F-statistic:	118.5
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	2.21e-26
Time:	16:33:59	Log-Likelihood:	-7410.4
No. Observations:	1208	AIC:	1.482e+04
Df Residuals:	1206	BIC:	1.484e+04
Df Model:	1		

	coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_8d5ba45f/pm25_atm	266.6590	7.256	36.751	0.000	252.423 280.895

Omnibus:	618.596	Durbin-Watson:	0.962
Prob(Omnibus):	0.000	Jarque-Bera (JB):	5609.076
Skew:	2.187	Prob(JB):	0.00
Kurtosis:	12.608	Cond. No.	3.74e+04



# Sensor ppd42ns@BdP\_33040d54 with sensor sds011@BdP\_8d5ba45f

## correlation report for pm25 (raw) measurements

Correlation details of project BdP sensor kit ID 33040d54 with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:34:01 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): sds011, ppd42ns

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Auto interval samples is (re)set to 999 (avg+2\*stddev)

Database table BdP\_33040d54 sensor (column) pm25\_pcsqf: 1342 db records, deleted 0 NaN records.

Auto interval samples is (re)set to 1059 (avg+2\*stddev)

Database table BdP\_8d5ba45f sensor (column) pm25: 1091 db records, deleted 0 NaN records.

Collected 1208 values in sample time frame (17m/39s) for the graph. Skipped 134 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 17m:39s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) pm25:

number 1208, min=986.00, max=39216.25

avg=10809.68, std dev=7232.86

R-squared ( $R^2$ ) with BdP\_8d5ba45f/pm25: 0.1676

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_33040d54/pm25\_pcsqf (sds011)-> best fit coefficients:

2.659e+02, 6.624e-03

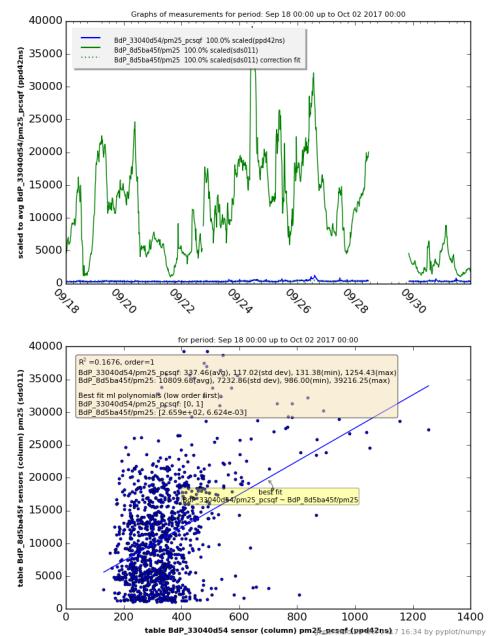
Statistical summary linear regression for BdP\_33040d54/pm25\_pcsqf with ['BdP\_8d5ba45f/pm25']:

#### OLS Regression Results

Dep. Variable:	BdP_33040d54/pm25_pcsqf	R-squared:	0.168
Model:	OLS	Adj. R-squared:	0.167
Method:	Least Squares	F-statistic:	242.9
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	5.03e-50
Time:	16:34:02	Log-Likelihood:	-7356.2
No. Observations:	1208	AIC:	1.472e+04
Df Residuals:	1206	BIC:	1.473e+04
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_8d5ba45f/pm25	265.8512	5.528	48.088	0.000 255.005 276.698

Omnibus:	541.439	Durbin-Watson:	1.051
Prob(Omnibus):	0.000	Jarque-Bera (JB):	4187.822
Skew:	1.901	Prob(JB):	0.00
Kurtosis:	11.292	Cond. No.	2.34e+04



# Sensor pms7003@BdP\_3f18c330 with sensor sds011@BdP\_3f18c330

## correlation report for pm25 (raw) measurements

Correlation details of project BdP sensor kit ID 3f18c330 with project BdP sensor kit ID 3f18c330

Date of correlation report: Mon Oct 2 16:34:03 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): sds011, pms7003

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Database table BdP\_3f18c330 sensor (column) pm25\_atm: 185 db records, deleted 0 NaN records.

Auto interval samples is (re)set to 1004 (avg+2\*stddev)

Database table BdP\_3f18c330 sensor (column) pm25: 1208 db records, deleted 0 NaN records.

Collected 184 values in sample time frame (16m/44s) for the graph. Skipped 1 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 16m:44s.

Data from table/sheet BdP\_3f18c330, sensor (column) pm25:

number 184, min=866.00, max=8190.14

avg=2584.43, std dev=1475.32

R-squared ( $R^2$ ) with BdP\_3f18c330/pm25: 0.9838

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_3f18c330/pm25\_atm (sds011)-> best fit coefficients:

-3.072e+02, 1.902e+00

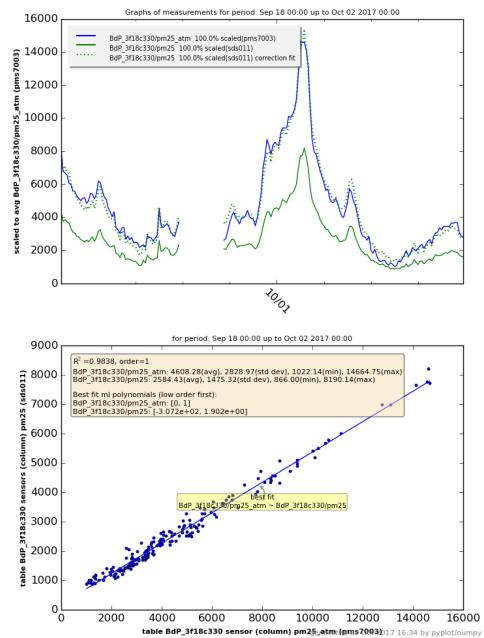
Statistical summary linear regression for BdP\_3f18c330/pm25\_atm with ['BdP\_3f18c330/pm25']:

#### OLS Regression Results

Dep. Variable:	BdP_3f18c330/pm25_atm	R-squared:	0.984
Model:	OLS	Adj. R-squared:	0.984
Method:	Least Squares	F-statistic:	1.108e+04
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	5.45e-165
Time:	16:34:04	Log-Likelihood:	-1343.9
No. Observations:	184	AIC:	2692.
Df Residuals:	182	BIC:	2698.
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_3f18c330/pm25	-307.2433	53.766	-5.714	0.000 -413.328 -201.159

Omnibus:	4.409	Durbin-Watson:	0.457
Prob(Omnibus):	0.110	Jarque-Bera (JB):	4.495
Skew:	-0.370	Prob(JB):	0.106
Kurtosis:	2.804	Cond. No.	6.00e+03



# Sensor pms7003@BdP\_3f18c330 with sensor pms7003@BdP\_8d5ba45f

## correlation report for pm25 (raw) measurements

Correlation details of project BdP sensor kit ID 3f18c330 with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:34:05 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): pms7003

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Database table BdP\_3f18c330 sensor (column) pm25\_atm: 185 db records, deleted 0 NaN records.

Auto interval samples is (re)set to 951 (avg+2\*stddev)

Database table BdP\_8d5ba45f sensor (column) pm25\_atm: 1210 db records, deleted 0 NaN records.

Collected 184 values in sample time frame (15m/51s) for the graph. Skipped 1 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 15m:51s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) pm25\_atm:

number 184, min=1042.25, max=15339.25

avg=4788.44, std dev=3012.67

R-squared ( $R^2$ ) with BdP\_8d5ba45f/pm25\_atm: 0.9887

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_3f18c330/pm25\_atm (pms7003)-> best fit coefficients:

1.373e+02, 9.337e-01

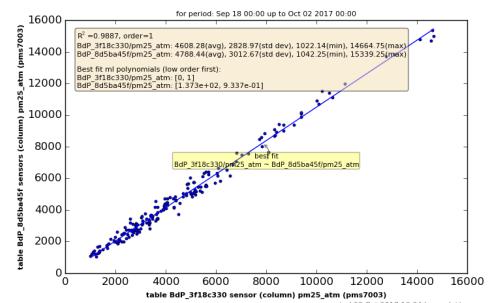
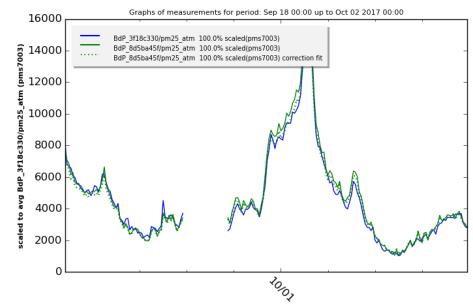
Statistical summary linear regression for BdP\_3f18c330/pm25\_atm with ['BdP\_8d5ba45f/pm25\_atm']:

#### OLS Regression Results

Dep. Variable:	BdP_3f18c330/pm25_atm	R-squared:	0.989
Model:	OLS	Adj. R-squared:	0.989
Method:	Least Squares	F-statistic:	1.594e+04
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	3.74e-179
Time:	16:34:06	Log-Likelihood:	-1311.0
No. Observations:	184	AIC:	2626.
Df Residuals:	182	BIC:	2632.
Df Model:	1		

	coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_8d5ba45f/pm25_atm	137.2598	41.843	3.280	0.001	54.701 219.819

Omnibus:	0.865	Durbin-Watson:	1.158
Prob(Omnibus):	0.649	Jarque-Bera (JB):	0.557
Skew:	0.102	Prob(JB):	0.757
Kurtosis:	3.175	Cond. No.	1.06e+04



# Sensor pms7003@BdP\_3f18c330 with sensor sds011@BdP\_8d5ba45f

## correlation report for pm25 (raw) measurements

Correlation details of project BdP sensor kit ID 3f18c330 with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:34:07 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): sds011, pms7003

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Database table BdP\_3f18c330 sensor (column) pm25\_atm: 185 db records, deleted 0 NaN records.

Auto interval samples is (re)set to 1004 (avg+2\*stddev)

Database table BdP\_8d5ba45f sensor (column) pm25: 1209 db records, deleted 0 NaN records.

Collected 184 values in sample time frame (16m/44s) for the graph. Skipped 1 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 16m:44s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) pm25:

number 184, min=1022.00, max=8957.88

avg=3024.07, std dev=1695.87

R-squared ( $R^2$ ) with BdP\_8d5ba45f/pm25: 0.9621

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_3f18c330/pm25\_atm (sds011)-> best fit coefficients:

-3.398e+02, 1.636e+00

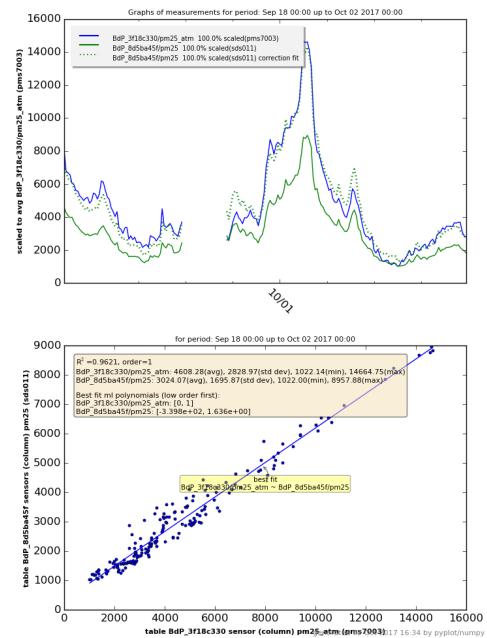
Statistical summary linear regression for BdP\_3f18c330/pm25\_atm with ['BdP\_8d5ba45f/pm25']:

### OLS Regression Results

Dep. Variable:	BdP_3f18c330/pm25_atm	R-squared:	0.962
Model:	OLS	Adj. R-squared:	0.962
Method:	Least Squares	F-statistic:	4621.
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	2.68e-131
Time:	16:34:08	Log-Likelihood:	-1422.3
No. Observations:	184	AIC:	2849.
Df Residuals:	182	BIC:	2855.
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_8d5ba45f/pm25	-339.8429	83.454	-4.072	0.000 -504.505 -175.180

Omnibus:	20.227	Durbin-Watson:	0.331
Prob(Omnibus):	0.000	Jarque-Bera (JB):	23.322
Skew:	-0.834	Prob(JB):	8.62e-06
Kurtosis:	3.509	Cond. No.	7.09e+03



# Sensor sds011@BdP\_3f18c330 with sensor pms7003@BdP\_8d5ba45f

## correlation report for pm25 (raw) measurements

Correlation details of project BdP sensor kit ID 3f18c330 with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:34:09 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): sds011, pms7003

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Auto interval samples is (re)set to 1004 (avg+2\*stddev)

Database table BdP\_3f18c330 sensor (column) pm25: 1208 db records, deleted 0 NaN records.

Auto interval samples is (re)set to 1064 (avg+2\*stddev)

Database table BdP\_8d5ba45f sensor (column) pm25\_atm: 1086 db records, deleted 0 NaN records.

Collected 1208 values in sample time frame (17m/44s) for the graph.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 17m:44s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) pm25\_atm:

number 1208, min=1084.75, max=37411.00

avg=14841.57, std dev=7325.91

R-squared ( $R^2$ ) with BdP\_8d5ba45f/pm25\_atm: 0.9063

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_3f18c330/pm25 (pms7003)-> best fit coefficients:

-3.120e+03, 8.819e-01

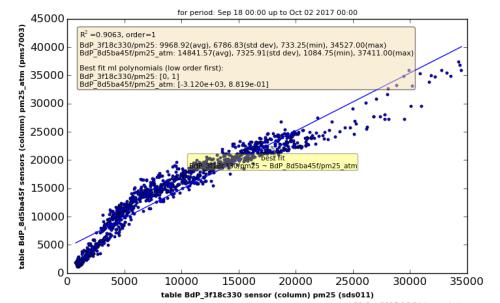
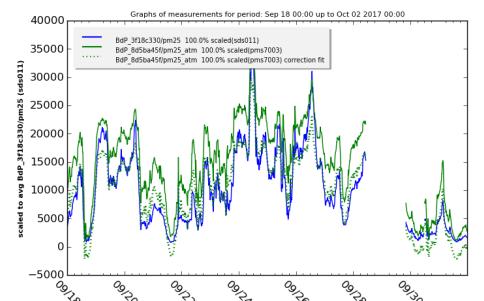
Statistical summary linear regression for BdP\_3f18c330/pm25 with ['BdP\_8d5ba45f/pm25\_atm']:

### OLS Regression Results

Dep. Variable:	BdP_3f18c330/pm25	R-squared:	0.906
Model:	OLS	Adj. R-squared:	0.906
Method:	Least Squares	F-statistic:	1.166e+04
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	0.00
Time:	16:34:10	Log-Likelihood:	-10942.
No. Observations:	1208	AIC:	2.189e+04
Df Residuals:	1206	BIC:	2.190e+04
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_8d5ba45f/pm25_atm	-3120.2211	135.185	-23.081	0.000 -3385.445 -2854.998

Omnibus:	46.829	Durbin-Watson:	0.082
Prob(Omnibus):	0.000	Jarque-Bera (JB):	51.309
Skew:	0.493	Prob(JB):	7.22e-12
Kurtosis:	3.216	Cond. No.	3.74e+04



# Sensor sds011@BdP\_3f18c330 with sensor sds011@BdP\_8d5ba45f

## correlation report for pm25 (raw) measurements

Correlation details of project BdP sensor kit ID 3f18c330 with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:34:12 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): sds011

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Auto interval samples is (re)set to 1004 (avg+2\*stddev)

Database table BdP\_3f18c330 sensor (column) pm25: 1208 db records, deleted 0 NaN records.

Auto interval samples is (re)set to 1064 (avg+2\*stddev)

Database table BdP\_8d5ba45f sensor (column) pm25: 1086 db records, deleted 0 NaN records.

Collected 1208 values in sample time frame (17m/44s) for the graph.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 17m:44s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) pm25:

number 1208, min=919.75, max=39084.00

avg=10806.79, std dev=7215.18

R-squared ( $R^2$ ) with BdP\_8d5ba45f/pm25: 0.9790

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_3f18c330/pm25 (sds011)-> best fit coefficients:

-8.919e+01, 9.307e-01

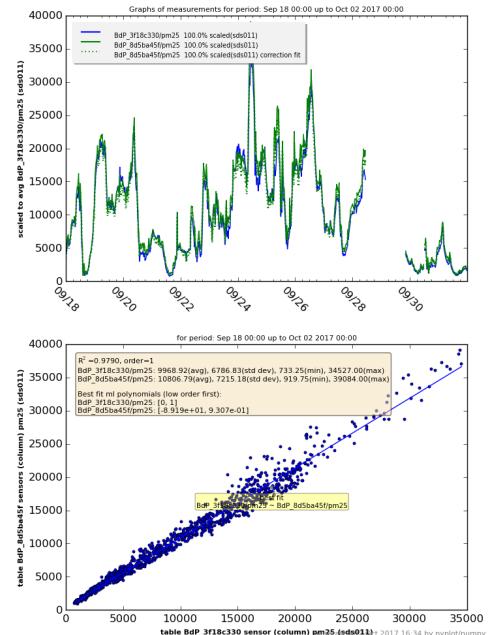
Statistical summary linear regression for BdP\_3f18c330/pm25 with ['BdP\_8d5ba45f/pm25']:

### OLS Regression Results

Dep. Variable:	BdP_3f18c330/pm25	R-squared:	0.979
Model:	OLS	Adj. R-squared:	0.979
Method:	Least Squares	F-statistic:	5.633e+04
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	0.00
Time:	16:34:12	Log-Likelihood:	-10037.
No. Observations:	1208	AIC:	2.008e+04
Df Residuals:	1206	BIC:	2.009e+04
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_8d5ba45f/pm25	-89.1876	50.956	-1.750	0.080 -189.161 10.786

Omnibus:	121.255	Durbin-Watson:	0.367
Prob(Omnibus):	0.000	Jarque-Bera (JB):	454.562
Skew:	-0.429	Prob(JB):	1.96e-99
Kurtosis:	5.880	Cond. No.	2.34e+04



# Sensor pms7003@BdP\_8d5ba45f with sensor sds011@BdP\_8d5ba45f

## correlation report for pm25 (raw) measurements

Correlation details of project BdP sensor kit ID 8d5ba45f with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:34:14 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): sds011, pms7003

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Auto interval samples is (re)set to 951 (avg+2\*stddev)

Database table BdP\_8d5ba45f sensor (column) pm25\_atm: 1210 db records, deleted 0 NaN records.

Auto interval samples is (re)set to 1007 (avg+2\*stddev)

Database table BdP\_8d5ba45f sensor (column) pm25: 1146 db records, deleted 0 NaN records.

Collected 1208 values in sample time frame (16m/47s) for the graph. Skipped 2 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 16m:47s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) pm25:

number 1208, min=877.62, max=39216.25

avg=10798.06, std dev=7237.84

R-squared ( $R^2$ ) with BdP\_8d5ba45f/pm25: 0.9001

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_8d5ba45f/pm25\_atm (sds011)-> best fit coefficients:

4.453e+03, 9.615e-01

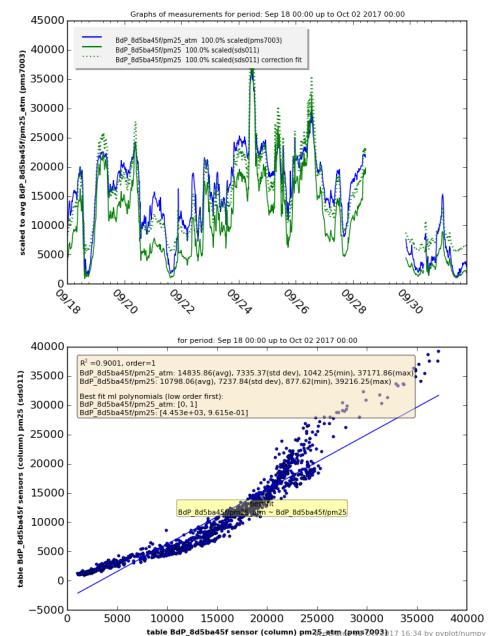
Statistical summary linear regression for BdP\_8d5ba45f/pm25\_atm with ['BdP\_8d5ba45f/pm25']:

### OLS Regression Results

Dep. Variable:	BdP_8d5ba45f/pm25_atm	R-squared:	0.900
Model:	OLS	Adj. R-squared:	0.900
Method:	Least Squares	F-statistic:	1.086e+04
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	0.00
Time:	16:34:14	Log-Likelihood:	-11075.
No. Observations:	1208	AIC:	2.215e+04
Df Residuals:	1206	BIC:	2.216e+04
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_8d5ba45f/pm25	4453.4446	119.92137	37.137	0.000 4218.168 4688.721

Omnibus:	153.294	Durbin-Watson:	0.087
Prob(Omnibus):	0.000	Jarque-Bera (JB):	95.085
Skew:	-0.560	Prob(JB):	2.25e-21
Kurtosis:	2.203	Cond. No.	2.33e+04



# Sensor bme280@BdP\_3f18c330 with sensor bme280@BdP\_8d5ba45f

## correlation report for temp (raw) measurements

Correlation details of project BdP sensor kit ID 3f18c330 with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:34:16 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): bme280

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Auto interval samples is (re)set to 951 (avg+2\*stddev)

Database table BdP\_3f18c330 sensor (column) temp: 1209 db records, deleted 0 NaN records.

Database table BdP\_8d5ba45f sensor (column) temp: 1148 db records, deleted 0 NaN records.

Collected 1209 values in sample time frame (15m/51s) for the graph.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 15m:51s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) temp:

number 1209, min=11.84, max=27.76

avg=18.50, std dev = 3.82

R-squared ( $R^2$ ) with BdP\_8d5ba45f/temp: 0.8953

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_3f18c330/temp (bme280)-> best fit coefficients:

2.173e+00, 9.002e-01

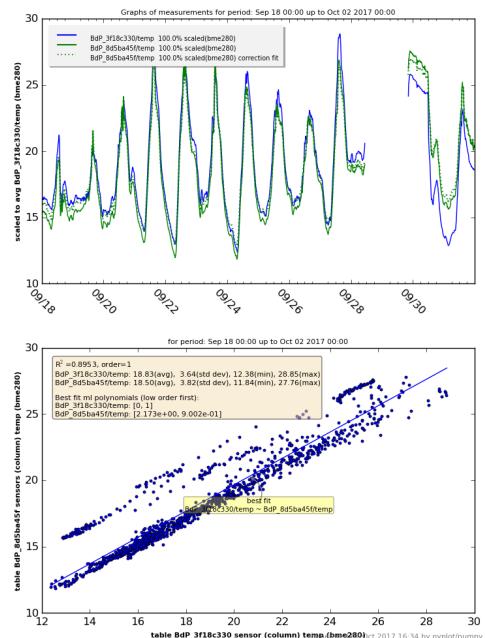
Statistical summary linear regression for BdP\_3f18c330/temp with ['BdP\_8d5ba45f/temp']:

#### OLS Regression Results

Dep. Variable:	BdP_3f18c330/temp	R-squared:	0.895
Model:	OLS	Adj. R-squared:	0.895
Method:	Least Squares	F-statistic:	1.032e+04
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	0.00
Time:	16:34:17	Log-Likelihood:	-1911.8
No. Observations:	1209	AIC:	3828.
Df Residuals:	1207	BIC:	3838.
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_8d5ba45f/temp	2.1732	0.167	12.983	0.000 1.845 2.502

Omnibus:	279.152	Durbin-Watson:	0.037
Prob(Omnibus):	0.000	Jarque-Bera (JB):	547.287
Skew:	-1.353	Prob(JB):	1.44e-119
Kurtosis:	4.883	Cond. No.	93.7



# Sensor bme280@BdP\_3f18c330 with sensor dht22@BdP\_8d5ba45f

## correlation report for temp (raw) measurements

Correlation details of project BdP sensor kit ID 3f18c330 with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:34:18 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): bme280, dht22

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Auto interval samples is (re)set to 951 (avg+2\*stddev)

Database table BdP\_3f18c330 sensor (column) temp: 1209 db records, deleted 0 NaN records.

Database table BdP\_8d5ba45f sensor (column) temp: 116 db records, deleted 0 NaN records.

Collected 122 values in sample time frame (15m/51s) for the graph. Skipped 1087 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 15m:51s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) temp:

number 122, min=14.50, max=19.73

avg=16.13, std dev= 1.12

R-squared ( $R^2$ ) with BdP\_8d5ba45f/temp: 0.9287

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_3f18c330/temp (dht22)-> best fit coefficients:

-1.183e-01, 1.050e+00

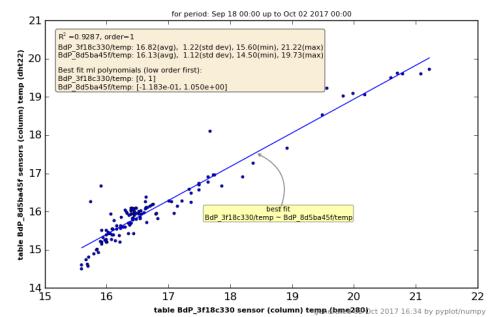
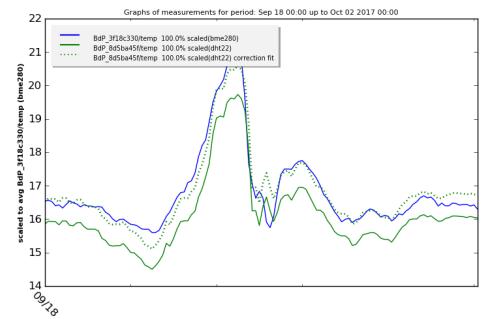
Statistical summary linear regression for BdP\_3f18c330/temp with ['BdP\_8d5ba45f/temp']:

#### OLS Regression Results

Dep. Variable:	BdP_3f18c330/temp	R-squared:	0.929
Model:	OLS	Adj. R-squared:	0.928
Method:	Least Squares	F-statistic:	1563.
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	1.16e-70
Time:	16:34:19	Log-Likelihood:	-36.174
No. Observations:	122	AIC:	76.35
Df Residuals:	120	BIC:	81.96
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_8d5ba45f/temp	-0.1183	0.430	-0.275	0.784 -0.969 0.732

Omnibus:	45.847	Durbin-Watson:	0.579
Prob(Omnibus):	0.000	Jarque-Bera (JB):	142.601
Skew:	-1.358	Prob(JB):	1.08e-31
Kurtosis:	7.547	Cond. No.	235.



# Sensor bme280@BdP\_8d5ba45f with sensor dht22@BdP\_8d5ba45f

## correlation report for temp (raw) measurements

Correlation details of project BdP sensor kit ID 8d5ba45f with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:34:20 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): bme280, dht22

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Database table BdP\_8d5ba45f sensor (column) temp: 1212 db records, deleted 0 NaN records.

Database table BdP\_8d5ba45f sensor (column) temp: 122 db records, deleted 0 NaN records.

Collected 122 values in sample time frame (15m/0s) for the graph. Skipped 1090 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 15m:0s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) temp:

number 122, min=14.50, max=19.71

avg=16.15, std dev= 1.14

R-squared ( $R^2$ ) with BdP\_8d5ba45f/temp: 0.9775

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_8d5ba45f/temp (dht22)-> best fit coefficients:

-6.783e-01, 1.014e+00

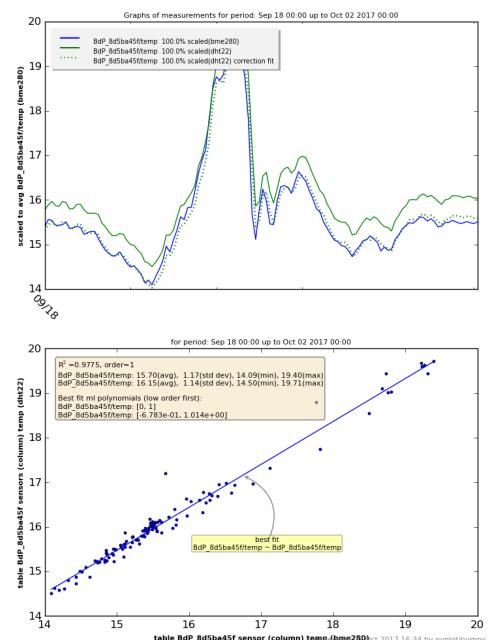
Statistical summary linear regression for BdP\_8d5ba45f/temp with ['BdP\_8d5ba45f/temp']:

#### OLS Regression Results

Dep. Variable:	BdP_8d5ba45f/temp	R-squared:	0.978
Model:	OLS	Adj. R-squared:	0.977
Method:	Least Squares	F-statistic:	5216.
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	9.69e-101
Time:	16:34:21	Log-Likelihood:	38.837
No. Observations:	122	AIC:	-73.67
Df Residuals:	120	BIC:	-68.07
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_8d5ba45f/temp	-0.6783	0.227	-2.983	0.003 -1.129 -0.228

Omnibus:	72.034	Durbin-Watson:	0.627
Prob(Omnibus):	0.000	Jarque-Bera (JB):	694.694
Skew:	-1.731	Prob(JB):	1.41e-151
Kurtosis:	14.166	Cond. No.	230.



# Sensor bme280@BdP\_3f18c330 with sensor bme280@BdP\_8d5ba45f

## correlation report for rh (raw) measurements

Correlation details of project BdP sensor kit ID 3f18c330 with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:34:22 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): bme280

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Auto interval samples is (re)set to 951 (avg+2\*stddev)

Database table BdP\_3f18c330 sensor (column) rh: 1209 db records, deleted 0 NaN records.

Database table BdP\_8d5ba45f sensor (column) rh: 1148 db records, deleted 0 NaN records.

Collected 1209 values in sample time frame (15m/51s) for the graph.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 15m:51s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) rh:

number 1209, min=32.99, max=77.15

avg=63.62, std dev= 9.23

R-squared ( $R^2$ ) with BdP\_8d5ba45f/rh: 0.7546

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_3f18c330/rh (bme280)-> best fit coefficients:

7.507e+00, 8.096e-01

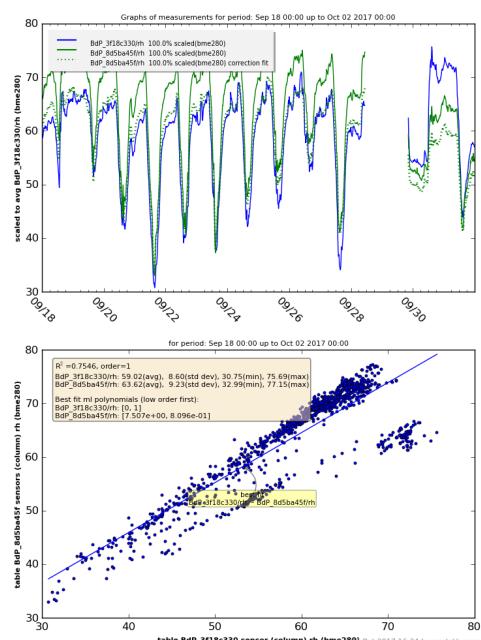
Statistical summary linear regression for BdP\_3f18c330/rh with ['BdP\_8d5ba45f/rh']:

#### OLS Regression Results

Dep. Variable:	BdP_3f18c330/rh	R-squared:	0.755
Model:	OLS	Adj. R-squared:	0.754
Method:	Least Squares	F-statistic:	3711.
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	0.00
Time:	16:34:23	Log-Likelihood:	-3468.3
No. Observations:	1209	AIC:	6941.
Df Residuals:	1207	BIC:	6951.
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_8d5ba45f/rh	7.5070	0.854	8.786	0.000 [5.831 9.183]

Omnibus:	444.528	Durbin-Watson:	0.031
Prob(Omnibus):	0.000	Jarque-Bera (JB):	1293.702
Skew:	1.912	Prob(JB):	1.19e-281
Kurtosis:	6.325	Cond. No.	448.



# Sensor bme280@BdP\_3f18c330 with sensor dht22@BdP\_8d5ba45f

## correlation report for rh (raw) measurements

Correlation details of project BdP sensor kit ID 3f18c330 with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:34:25 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): bme280, dht22

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Auto interval samples is (re)set to 951 (avg+2\*stddev)

Database table BdP\_3f18c330 sensor (column) rh: 1209 db records, deleted 0 NaN records.

Database table BdP\_8d5ba45f sensor (column) rh: 116 db records, deleted 0 NaN records.

Collected 122 values in sample time frame (15m:51s) for the graph. Skipped 1087 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 15m:51s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) rh:

number 122, min=59.69, max=77.38

avg=72.60, std dev= 3.91

R-squared ( $R^2$ ) with BdP\_8d5ba45f/rh: 0.8965

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_3f18c330/rh (dht22)-> best fit coefficients:

-3.808e+00, 9.135e-01

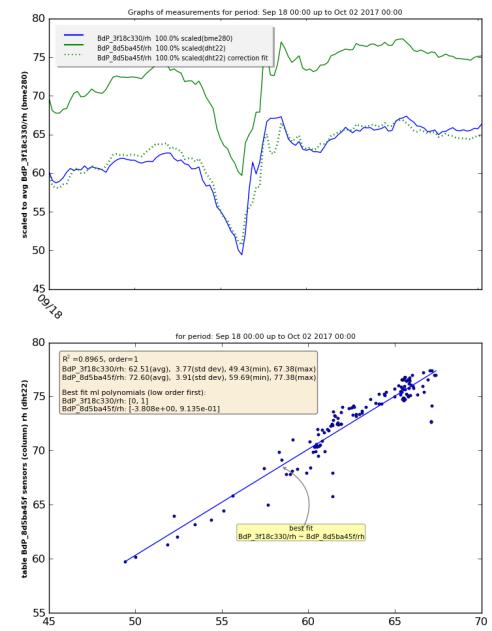
Statistical summary linear regression for BdP\_3f18c330/rh with ['BdP\_8d5ba45f/rh']:

#### OLS Regression Results

Dep. Variable:	BdP_3f18c330/rh	R-squared:	0.896
Model:	OLS	Adj. R-squared:	0.896
Method:	Least Squares	F-statistic:	1039.
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	6.16e-61
Time:	16:34:25	Log-Likelihood:	-196.62
No. Observations:	122	AIC:	397.2
Df Residuals:	120	BIC:	402.9
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_8d5ba45f/rh	-3.8075	2.060	-1.848	0.067 -7.887 0.272

Omnibus:	53.068	Durbin-Watson:	0.495
Prob(Omnibus):	0.000	Jarque-Bera (JB):	156.047
Skew:	1.642	Prob(JB):	1.30e-34
Kurtosis:	7.463	Cond. No.	1.35e+03



# Sensor bme280@BdP\_8d5ba45f with sensor dht22@BdP\_8d5ba45f

## correlation report for rh (raw) measurements

Correlation details of project BdP sensor kit ID 8d5ba45f with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:34:27 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): bme280, dht22

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Database table BdP\_8d5ba45f sensor (column) rh: 1212 db records, deleted 0 NaN records.

Database table BdP\_8d5ba45f sensor (column) rh: 122 db records, deleted 0 NaN records.

Collected 122 values in sample time frame (15m/0s) for the graph. Skipped 1090 db records, could not find any value(s) in same sample interval.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 15m:0s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) rh:

number 122, min=59.71, max=77.53

avg=72.62, std dev= 3.95

R-squared ( $R^2$ ) with BdP\_8d5ba45f/rh: 0.9730

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_8d5ba45f/rh (dht22)-> best fit coefficients:

2.502e+00, 9.351e-01

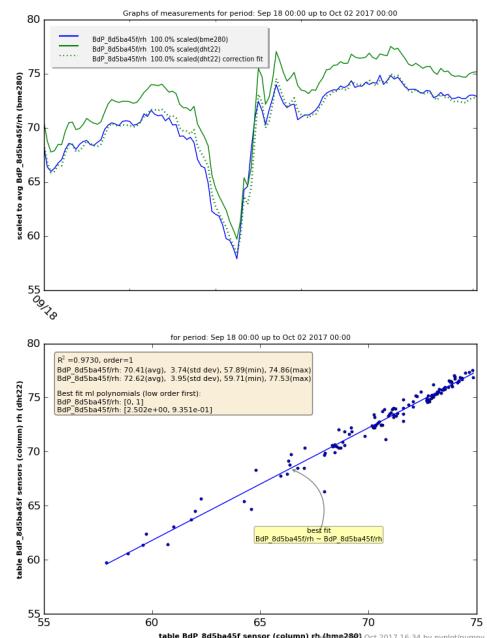
Statistical summary linear regression for BdP\_8d5ba45f/rh with [BdP\_8d5ba45f/rh]:

#### OLS Regression Results

Dep. Variable:	BdP_8d5ba45f/rh	R-squared:	0.973
Model:	OLS	Adj. R-squared:	0.973
Method:	Least Squares	F-statistic:	4322.
Date:	Mon, 02 Oct 2017	Prob (F-statistic):	5.78e-96
Time:	16:34:27	Log-Likelihood:	-113.88
No. Observations:	122	AIC:	231.8
Df Residuals:	120	BIC:	237.4
Df Model:	1		

coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_8d5ba45f/rh	2.5019	1.034	2.419	0.017 0.454 4.550

Omnibus:	53.935	Durbin-Watson:	0.631
Prob(Omnibus):	0.000	Jarque-Bera (JB):	368.626
Skew:	1.281	Prob(JB):	8.99e-81
Kurtosis:	11.121	Cond. No.	1.34e+03



# Sensor bme280@BdP\_3f18c330 with sensor bme280@BdP\_8d5ba45f

## correlation report for pha (raw) measurements

Correlation details of project BdP sensor kit ID 3f18c330 with project BdP sensor kit ID 8d5ba45f

Date of correlation report: Mon Oct 2 16:34:29 CEST 2017

From date 2017-09-18 upto 2017-10-02 00:00

Origin of measurement time serie data from InFluxDB host: localhost

Report generated by MyRegression.py (GPL V4) (user teus)

### General statistical information for the measurements graphs

Regression best fit calculation details for sensor type(s): bme280

Graphs based on data INFLUX from influxdb on server localhost as user teus:

Auto interval samples is (re)set to 951 (avg+2\*stddev)

Database table BdP\_3f18c330 sensor (column) pha: 1209 db records, deleted 0 NaN records.

Database table BdP\_8d5ba45f sensor (column) pha: 1148 db records, deleted 0 NaN records.

Collected 1209 values in sample time frame (15m/51s) for the graph.

Samples period: Sep 18 00:00 up to Oct 02 2017 00:00, interval timing 15m:51s.

Data from table/sheet BdP\_8d5ba45f, sensor (column) pha:

number 1209, min=101076.39, max=102289.84

avg=101787.23, std dev=283.11

R-squared ( $R^2$ ) with BdP\_8d5ba45f/pha: 0.9993

Best fit linear single polynomial regression curve ( $A_0 * X^0 + A_1 * X^1$ ):

BdP\_3f18c330/pha (bme280)-> best fit coefficients:

3.021e+02, 9.966e-01

Statistical summary linear regression for BdP\_3f18c330/pha with ['BdP\_8d5ba45f/pha']:

#### OLS Regression Results

Dep. Variable: BdP\_3f18c330/pha R-squared: 0.999  
Model: OLS Adj. R-squared: 0.999  
Method: Least Squares F-statistic: 1.653e+06  
Date: Mon, 02 Oct 2017 Prob (F-statistic): 0.00  
Time: 16:34:29 Log-Likelihood: -4171.3  
No. Observations: 1209 AIC: 8347.  
Df Residuals: 1207 BIC: 8357.  
Df Model: 1

coef std err t P>|t| [95.0% Conf. Int.]  
BdP\_8d5ba45f/pha 302.1132 78.897 3.829 0.000 147.324 456.903

Omnibus: 143.039 Durbin-Watson: 0.430  
Prob(Omnibus): 0.000 Jarque-Bera (JB): 207.505  
Skew: 0.861 Prob(JB): 8.73e-46  
Kurtosis: 4.073 Cond. No. 3.66e+07

