

# Correlation report for sensing pm10: sensor type dylos with sds011

Date of calculation: vr jul 7 17:21:27 CEST 2017  
From date 2017-06-09 upto 2017-06-27

## General information for the graphs

Regression best fit calculation details for sensor type(s): sds011  
Graphs based on data INFLUX from influxdb on server lunar as user teus:  
Auto interval samples is (re)set to 943 (avg+2\*stddev)  
Database table BdP\_f46d04af97ab sensor (column) pm10: 1719 db records, deleted 0 NaN records.  
Auto interval samples is (re)set to 1036 (avg+2\*stddev)  
Database table BdP\_3f18c330 sensor (column) pm10: 1648 db records, deleted 0 NaN records.  
Collected 1719 values in sample time frame (17m/16s) for the graph.

Samples period: Jun 09 00:00 up to Jun 27 2017 00:00, interval timing 17m:16s.

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

number 1719, min= 2.00, max=48.00

avg=14.04, std dev= 7.89

R-squared (R<sup>2</sup>) with BdP\_3f18c330/pm10: 0.9565

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

BdP\_f46d04af97ab/pm10 (sds011)-> best fit coefficients:

-5.640e-01, 1.304e+00

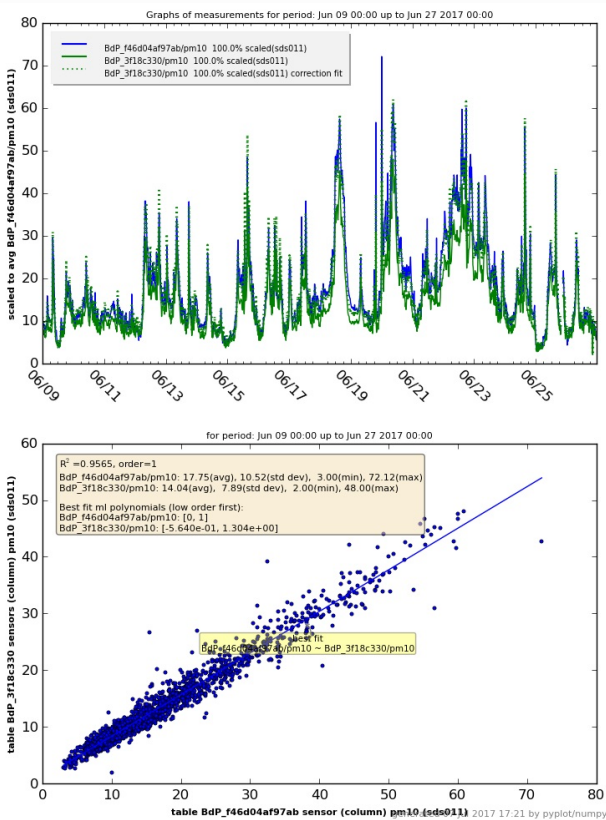
Statistical summary linear regression for  
BdP\_f46d04af97ab/pm10 with ['BdP\_3f18c330/pm10']:

### OLS Regression Results

<b>Dep. Variable:</b>	BdP_f46d04af97ab/pm10	<b>R-squared:</b>	0.957
<b>Model:</b>	OLS	<b>Adj. R-squared:</b>	0.957
<b>Method:</b>	Least Squares	<b>F-statistic:</b>	3.779e+04
<b>Date:</b>	Fri, 07 Jul 2017	<b>Prob (F-statistic):</b>	0.00
<b>Time:</b>	17:21:28	<b>Log-Likelihood:</b>	-3788.5
<b>No. Observations:</b>	1719	<b>AIC:</b>	7581.
<b>Df Residuals:</b>	1717	<b>BIC:</b>	7592.
<b>Df Model:</b>	1		

	coef	std err	t	P> t	[95.0% Conf. Int.]
<b>BdP_3f18c330/pm10</b>	-0.5640	0.108	-5.219	0.000	-0.776 -0.352

<b>Omnibus:</b>	353.969	<b>Durbin-Watson:</b>	1.540
<b>Prob(Omnibus):</b>	0.000	<b>Jarque-Bera (JB):</b>	10511.111
<b>Skew:</b>	-0.178	<b>Prob(JB):</b>	0.00
<b>Kurtosis:</b>	15.109	<b>Cond. No.</b>	33.0



# Correlation report for sensing pm10: sensor type dylos with sds011

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From date 2017-06-09 upto 2017-06-27

## General information for the graphs

Regression best fit calculation details for sensor type(s): sds011  
Graphs based on data INFLUX from influxdb on server lunar as user teus:  
Auto interval samples is (re)set to 943 (avg+2\*stddev)  
Database table BdP\_f46d04af97ab sensor (column) pm10: 1719 db records, deleted 0 NaN records.  
Auto interval samples is (re)set to 1036 (avg+2\*stddev)  
Database table BdP\_3f18c330 sensor (column) pm10: 1648 db records, deleted 0 NaN records.  
Collected 1719 values in sample time frame (17m/16s) for the graph.

Samples period: Jun 09 00:00 up to Jun 27 2017 00:00, interval timing 17m:16s.

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

number 1719, min= 2.00, max=48.00

avg=14.04, std dev= 7.89

R-squared (R<sup>2</sup>) with BdP\_3f18c330/pm10: 0.9565

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

BdP\_f46d04af97ab/pm10 (sds011)-> best fit coefficients:

-5.640e-01, 1.304e+00

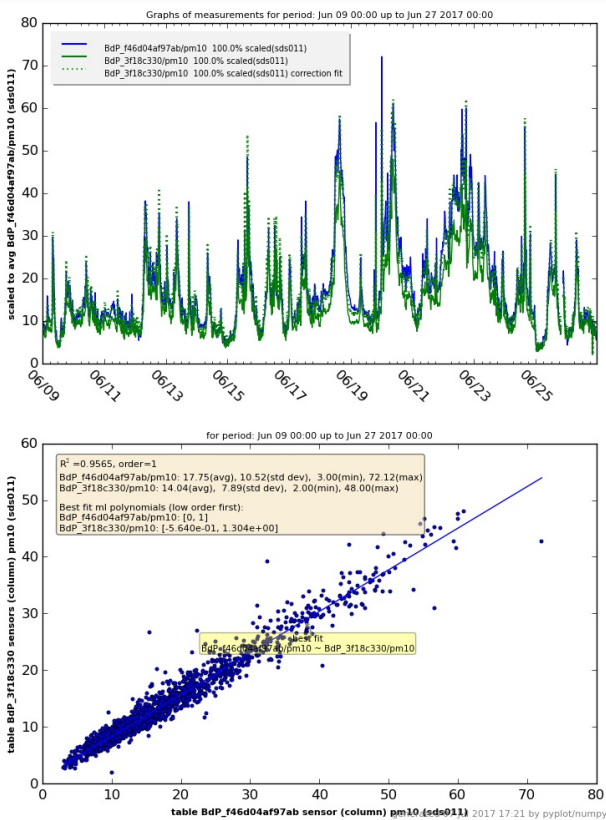
Statistical summary linear regression for  
BdP\_f46d04af97ab/pm10 with ['BdP\_3f18c330/pm10']:

### OLS Regression Results

<b>Dep. Variable:</b>	BdP_f46d04af97ab/pm10	<b>R-squared:</b>	0.957
<b>Model:</b>	OLS	<b>Adj. R-squared:</b>	0.957
<b>Method:</b>	Least Squares	<b>F-statistic:</b>	3.779e+04
<b>Date:</b>	Fri, 07 Jul 2017	<b>Prob (F-statistic):</b>	0.00
<b>Time:</b>	17:21:28	<b>Log-Likelihood:</b>	-3788.5
<b>No. Observations:</b>	1719	<b>AIC:</b>	7581.
<b>Df Residuals:</b>	1717	<b>BIC:</b>	7592.
<b>Df Model:</b>	1		

	coef	std err	t	P> t	[95.0% Conf. Int.]
<b>BdP_3f18c330/pm10</b>	-0.5640	0.108	-5.219	0.000	-0.776 -0.352

<b>Omnibus:</b>	353.969	<b>Durbin-Watson:</b>	1.540
<b>Prob(Omnibus):</b>	0.000	<b>Jarque-Bera (JB):</b>	10511.111
<b>Skew:</b>	-0.178	<b>Prob(JB):</b>	0.00
<b>Kurtosis:</b>	15.109	<b>Cond. No.</b>	33.0



# Correlation report for sensing pm10: sensor type ppd42ns with sds011

Date of calculation: vr jul 7 17:21:32 CEST 2017  
From date 2017-06-09 upto 2017-06-27

## General information for the graphs

Regression best fit calculation details for sensor type(s): sds011, ppd42ns  
Graphs based on data INFLUX from influxdb on server lunar as user teus:  
Auto interval samples is (re)set to 1039 (avg+2\*stddev)  
Database table BdP\_3f18c330 sensor (column) pm10: 1724 db records, deleted 0 NaN records.  
Auto interval samples is (re)set to 1383 (avg+2\*stddev)  
Database table BdP\_3f18c330 sensor (column) pm10\_pcsqf: 1464 db records, deleted 0 NaN records.  
Collected 1699 values in sample time frame (23m/3s) for the graph. Skipped 25 db records, could not find any value(s) in same sample interval.

Samples period: Jun 09 00:00 up to Jun 27 2017 00:00, interval timing 23m:3s.

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

number 1699, min= 1.00, max=1261.00

avg=62.27, std dev=64.01

R-squared ( $R^2$ ) with BdP\_3f18c330/pm10\_pcsqf: 0.0517

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

BdP\_3f18c330/pm10 (ppd42ns)-> best fit coefficients:

1.239e+01, 2.808e-02

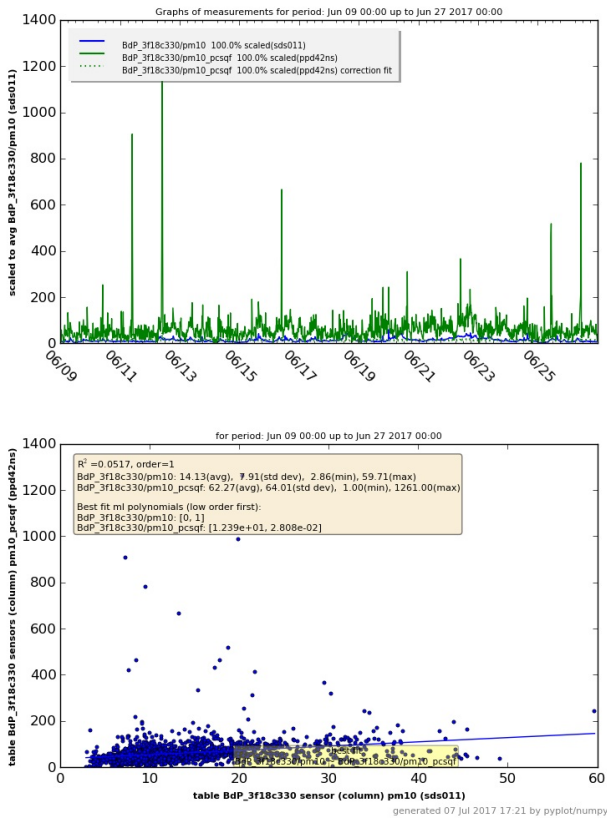
Statistical summary linear regression for BdP\_3f18c330/pm10 with ['BdP\_3f18c330/pm10\_pcsqf']:

### OLS Regression Results

Dep. Variable:	BdP_3f18c330/pm10	R-squared:	0.052
Model:	OLS	Adj. R-squared:	0.051
Method:	Least Squares	F-statistic:	92.53
Date:	Fri, 07 Jul 2017	Prob (F-statistic):	2.30e-21
Time:	17:21:33	Log-Likelihood:	-5878.4
No. Observations:	1699	AIC:	1.176e+04
Df Residuals:	1697	BIC:	1.177e+04
Df Model:	1		

	coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_3f18c330/pm10_pcsqf	12.3855	0.261	47.507	0.000	11.874 12.897

Omnibus:	447.983	Durbin-Watson:	0.170
Prob(Omnibus):	0.000	Jarque-Bera (JB):	1123.852
Skew:	1.411	Prob(JB):	9.09e-245
Kurtosis:	5.813	Cond. No.	125.



# Correlation report for sensing pm10: sensor type ppd42ns with sds011

Date of calculation: vr jul 7 17:21:32 CEST 2017  
From date 2017-06-09 upto 2017-06-27

## General information for the graphs

Regression best fit calculation details for sensor type(s): sds011, ppd42ns  
Graphs based on data INFLUX from influxdb on server lunar as user teus:  
Auto interval samples is (re)set to 1039 (avg+2\*stddev)  
Database table BdP\_3f18c330 sensor (column) pm10: 1724 db records, deleted 0 NaN records.  
Auto interval samples is (re)set to 1383 (avg+2\*stddev)  
Database table BdP\_3f18c330 sensor (column) pm10\_pcsqf: 1464 db records, deleted 0 NaN records.  
Collected 1699 values in sample time frame (23m/3s) for the graph. Skipped 25 db records, could not find any value(s) in same sample interval.

Samples period: Jun 09 00:00 up to Jun 27 2017 00:00, interval timing 23m:3s.

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

number 1699, min= 1.00, max=1261.00

avg=62.27, std dev=64.01

R-squared (R<sup>2</sup>) with BdP\_3f18c330/pm10\_pcsqf: 0.0517

Best fit linear single polynomial regression curve (A<sub>0</sub>\*X<sup>0</sup> + A<sub>1</sub>\*X<sup>1</sup>):

BdP\_3f18c330/pm10 (ppd42ns)-> best fit coefficients:

1.239e+01, 2.808e-02

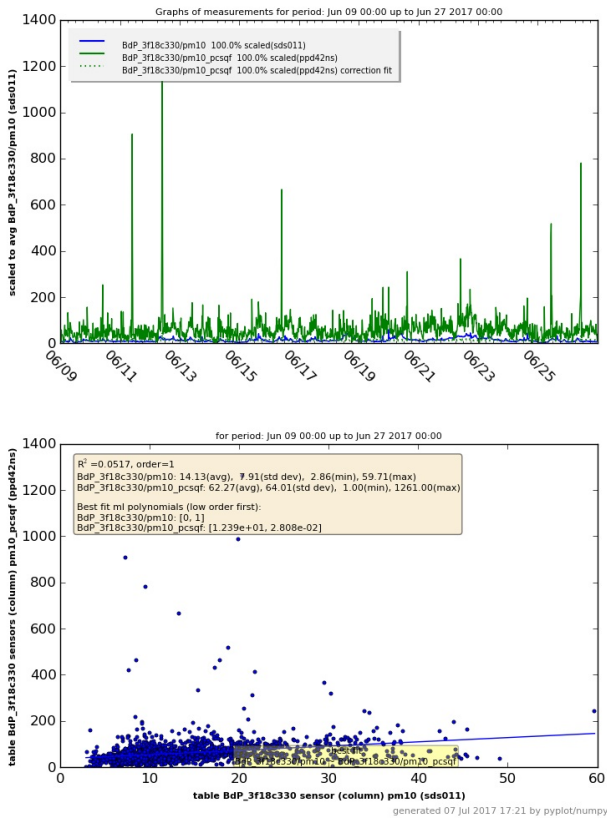
Statistical summary linear regression for BdP\_3f18c330/pm10 with ['BdP\_3f18c330/pm10\_pcsqf']:

### OLS Regression Results

Dep. Variable:	BdP_3f18c330/pm10	R-squared:	0.052
Model:	OLS	Adj. R-squared:	0.051
Method:	Least Squares	F-statistic:	92.53
Date:	Fri, 07 Jul 2017	Prob (F-statistic):	2.30e-21
Time:	17:21:33	Log-Likelihood:	-5878.4
No. Observations:	1699	AIC:	1.176e+04
Df Residuals:	1697	BIC:	1.177e+04
Df Model:	1		

	coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_3f18c330/pm10_pcsqf	12.3855	0.261	47.507	0.000	11.874 12.897

Omnibus:	447.983	Durbin-Watson:	0.170
Prob(Omnibus):	0.000	Jarque-Bera (JB):	1123.852
Skew:	1.411	Prob(JB):	9.09e-245
Kurtosis:	5.813	Cond. No.	125.



# Correlation report for sensing pm25: sensor type dylos with sds011

Date of calculation: vr jul 7 17:21:37 CEST 2017  
From date 2017-06-09 upto 2017-06-27

## General information for the graphs

Regression best fit calculation details for sensor type(s): sds011  
Graphs based on data INFLUX from influxdb on server lunar as user teus:  
Auto interval samples is (re)set to 943 (avg+2\*stddev)  
Database table BdP\_f46d04af97ab sensor (column) pm25: 1719 db records, deleted 0 NaN records.  
Auto interval samples is (re)set to 1036 (avg+2\*stddev)  
Database table BdP\_3f18c330 sensor (column) pm25: 1648 db records, deleted 0 NaN records.  
Collected 1719 values in sample time frame (17m/16s) for the graph.

Samples period: Jun 09 00:00 up to Jun 27 2017 00:00, interval timing 17m:16s.

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

number 1719, min=337.00, max=9048.12

avg=1996.78, std dev=1483.22

R-squared ( $R^2$ ) with BdP\_3f18c330/pm25: 0.9842

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

BdP\_f46d04af97ab/pm25 (sds011)-> best fit coefficients:

8.628e+01, 1.194e+00

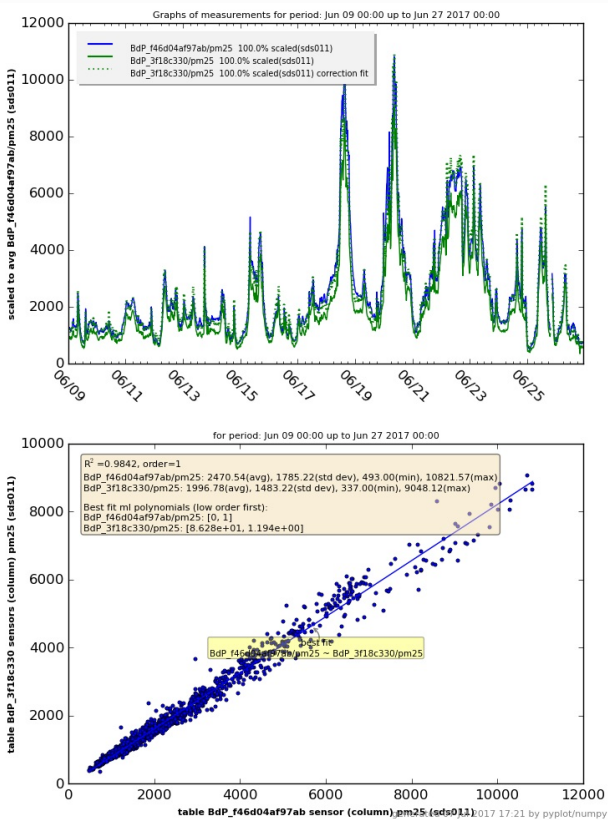
Statistical summary linear regression for  
BdP\_f46d04af97ab/pm25 with ['BdP\_3f18c330/pm25']:

### OLS Regression Results

<b>Dep. Variable:</b>	BdP_f46d04af97ab/pm25	<b>R-squared:</b>	0.984
<b>Model:</b>	OLS	<b>Adj. R-squared:</b>	0.984
<b>Method:</b>	Least Squares	<b>F-statistic:</b>	1.068e+05
<b>Date:</b>	Fri, 07 Jul 2017	<b>Prob (F-statistic):</b>	0.00
<b>Time:</b>	17:21:37	<b>Log-Likelihood:</b>	-11746.
<b>No. Observations:</b>	1719	<b>AIC:</b>	2.350e+04
<b>Df Residuals:</b>	1717	<b>BIC:</b>	2.351e+04
<b>Df Model:</b>	1		

	coef	std err	t	P> t	[95.0% Conf. Int.]
<b>BdP_3f18c330/pm25</b>	86.2833	9.087	9.495	0.000	68.461 104.106

<b>Omnibus:</b>	248.685	<b>Durbin-Watson:</b>	0.672
<b>Prob(Omnibus):</b>	0.000	<b>Jarque-Bera (JB):</b>	3130.290
<b>Skew:</b>	0.174	<b>Prob(JB):</b>	0.00
<b>Kurtosis:</b>	9.602	<b>Cond. No.</b>	4.17e+03





# Correlation report for sensing pm25: sensor type dylos with sds011

Date of calculation: vr jul 7 17:21:37 CEST 2017  
From date 2017-06-09 upto 2017-06-27

## General information for the graphs

Regression best fit calculation details for sensor type(s): sds011  
Graphs based on data INFLUX from influxdb on server lunar as user teus:  
Auto interval samples is (re)set to 943 (avg+2\*stddev)  
Database table BdP\_f46d04af97ab sensor (column) pm25: 1719 db records, deleted 0 NaN records.  
Auto interval samples is (re)set to 1036 (avg+2\*stddev)  
Database table BdP\_3f18c330 sensor (column) pm25: 1648 db records, deleted 0 NaN records.  
Collected 1719 values in sample time frame (17m/16s) for the graph.

Samples period: Jun 09 00:00 up to Jun 27 2017 00:00, interval timing 17m:16s.

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

number 1719, min=337.00, max=9048.12

avg=1996.78, std dev=1483.22

R-squared (R<sup>2</sup>) with BdP\_3f18c330/pm25: 0.9842

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

BdP\_f46d04af97ab/pm25 (sds011)-> best fit coefficients:

8.628e+01, 1.194e+00

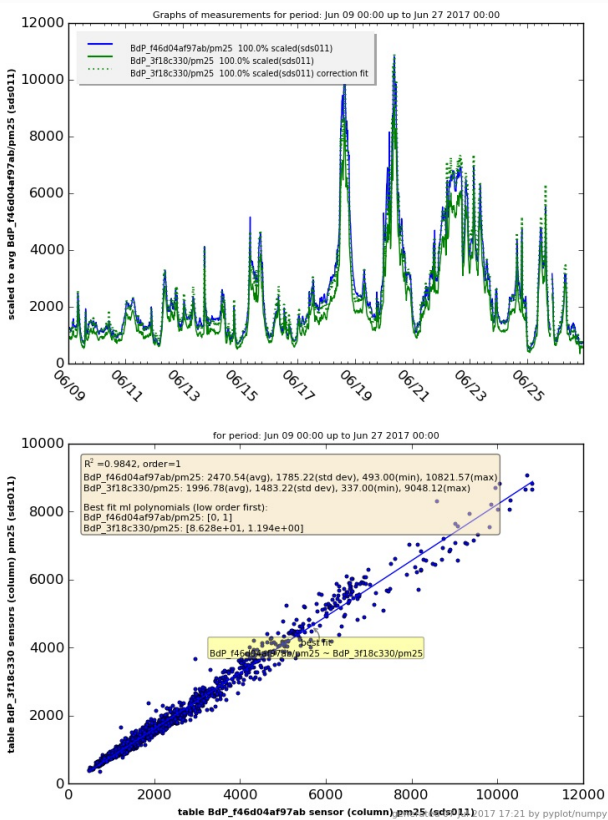
Statistical summary linear regression for  
BdP\_f46d04af97ab/pm25 with ['BdP\_3f18c330/pm25']:

### OLS Regression Results

<b>Dep. Variable:</b>	BdP_f46d04af97ab/pm25	<b>R-squared:</b>	0.984
<b>Model:</b>	OLS	<b>Adj. R-squared:</b>	0.984
<b>Method:</b>	Least Squares	<b>F-statistic:</b>	1.068e+05
<b>Date:</b>	Fri, 07 Jul 2017	<b>Prob (F-statistic):</b>	0.00
<b>Time:</b>	17:21:37	<b>Log-Likelihood:</b>	-11746.
<b>No. Observations:</b>	1719	<b>AIC:</b>	2.350e+04
<b>Df Residuals:</b>	1717	<b>BIC:</b>	2.351e+04
<b>Df Model:</b>	1		

	coef	std err	t	P> t	[95.0% Conf. Int.]
<b>BdP_3f18c330/pm25</b>	86.2833	9.087	9.495	0.000	68.461 104.106

<b>Omnibus:</b>	248.685	<b>Durbin-Watson:</b>	0.672
<b>Prob(Omnibus):</b>	0.000	<b>Jarque-Bera (JB):</b>	3130.290
<b>Skew:</b>	0.174	<b>Prob(JB):</b>	0.00
<b>Kurtosis:</b>	9.602	<b>Cond. No.</b>	4.17e+03



# Correlation report for sensing pm25: sensor type ppd42ns with sds011

Date of calculation: vr jul 7 17:21:41 CEST 2017  
From date 2017-06-09 upto 2017-06-27

## General information for the graphs

Regression best fit calculation details for sensor type(s): sds011, ppd42ns  
Graphs based on data INFLUX from influxdb on server lunar as user teus:  
Auto interval samples is (re)set to 1039 (avg+2\*stddev)  
Database table BdP\_3f18c330 sensor (column) pm25: 1724 db records, deleted 0 NaN records.  
Auto interval samples is (re)set to 1092 (avg+2\*stddev)  
Database table BdP\_3f18c330 sensor (column) pm25\_pcsqf: 1496 db records, deleted 0 NaN records.  
Collected 1724 values in sample time frame (18m/12s) for the graph.

Samples period: Jun 09 00:00 up to Jun 27 2017 00:00, interval timing 18m:12s.

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

number 1724, min=80.62, max=3304.47  
avg=357.50, std dev=203.99  
R-squared ( $R^2$ ) with BdP\_3f18c330/pm25\_pcsqf: 0.0320

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

BdP\_3f18c330/pm25 (ppd42ns)-> best fit coefficients:  
1.528e+03, 1.298e+00

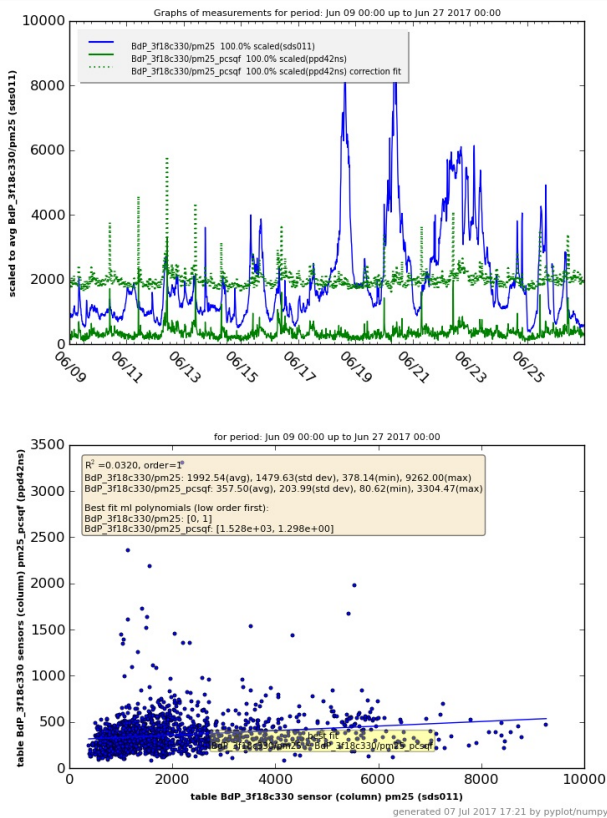
Statistical summary linear regression for BdP\_3f18c330/pm25 with ['BdP\_3f18c330/pm25\_pcsqf']:

### OLS Regression Results

Dep. Variable:	BdP_3f18c330/pm25	R-squared:	0.032
Model:	OLS	Adj. R-squared:	0.031
Method:	Least Squares	F-statistic:	56.99
Date:	Fri, 07 Jul 2017	Prob (F-statistic):	7.05e-14
Time:	17:21:42	Log-Likelihood:	-15003.
No. Observations:	1724	AIC:	3.001e+04
Df Residuals:	1722	BIC:	3.002e+04
Df Model:	1		

	coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_3f18c330/pm25_pcsqf	1528.3987	70.784	21.592	0.000	1389.566 1667.231

Omnibus:	624.044	Durbin-Watson:	0.046
Prob(Omnibus):	0.000	Jarque-Bera (JB):	1969.686
Skew:	1.849	Prob(JB):	0.00
Kurtosis:	6.707	Cond. No.	831.



# Correlation report for sensing pm25: sensor type ppd42ns with sds011

Date of calculation: vr jul 7 17:21:41 CEST 2017  
From date 2017-06-09 upto 2017-06-27

## General information for the graphs

Regression best fit calculation details for sensor type(s): sds011, ppd42ns  
Graphs based on data INFLUX from influxdb on server lunar as user teus:  
Auto interval samples is (re)set to 1039 (avg+2\*stddev)  
Database table BdP\_3f18c330 sensor (column) pm25: 1724 db records, deleted 0 NaN records.  
Auto interval samples is (re)set to 1092 (avg+2\*stddev)  
Database table BdP\_3f18c330 sensor (column) pm25\_pcsqf: 1496 db records, deleted 0 NaN records.  
Collected 1724 values in sample time frame (18m/12s) for the graph.

Samples period: Jun 09 00:00 up to Jun 27 2017 00:00, interval timing 18m:12s.

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

number 1724, min=80.62, max=3304.47

avg=357.50, std dev=203.99

R-squared ( $R^2$ ) with BdP\_3f18c330/pm25\_pcsqf: 0.0320

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

BdP\_3f18c330/pm25 (ppd42ns)-> best fit coefficients:

1.528e+03, 1.298e+00

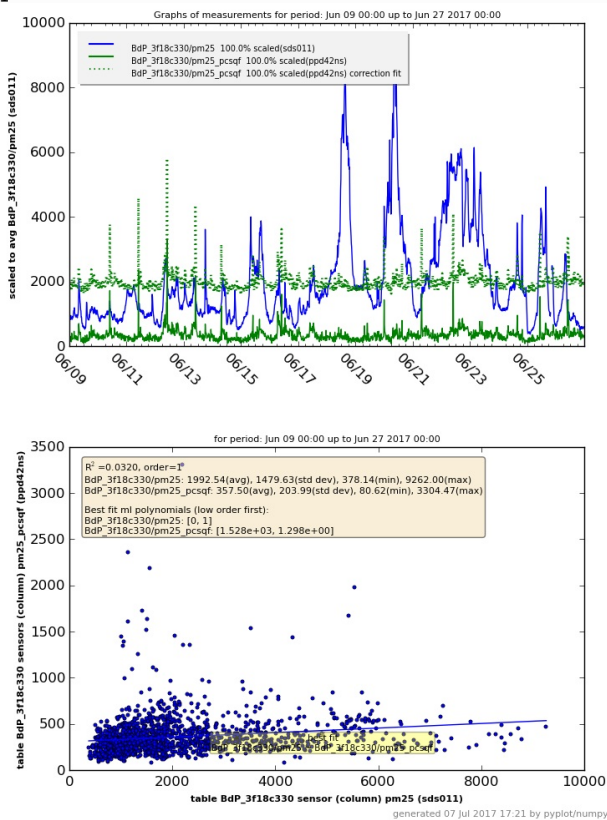
Statistical summary linear regression for BdP\_3f18c330/pm25 with ['BdP\_3f18c330/pm25\_pcsqf']:

### OLS Regression Results

<b>Dep. Variable:</b>	BdP_3f18c330/pm25	<b>R-squared:</b>	0.032
<b>Model:</b>	OLS	<b>Adj. R-squared:</b>	0.031
<b>Method:</b>	Least Squares	<b>F-statistic:</b>	56.99
<b>Date:</b>	Fri, 07 Jul 2017	<b>Prob (F-statistic):</b>	7.05e-14
<b>Time:</b>	17:21:42	<b>Log-Likelihood:</b>	-15003.
<b>No. Observations:</b>	1724	<b>AIC:</b>	3.001e+04
<b>Df Residuals:</b>	1722	<b>BIC:</b>	3.002e+04
<b>Df Model:</b>	1		

	coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_3f18c330/pm25_pcsqf	1528.3987	70.784	21.592	0.000	1389.566 1667.231

Omnibus:	624.044	Durbin-Watson:	0.046
Prob(Omnibus):	0.000	Jarque-Bera (JB):	1969.686
Skew:	1.849	Prob(JB):	0.00
Kurtosis:	6.707	Cond. No.	831.



generated 07 Jul 2017 17:21 by pyplot/humpy



# Correlation report for sensing temp: sensor type bme280 with bme280

Date of calculation: vr jul 7 17:21:44 CEST 2017  
From date 2017-06-09 upto 2017-06-27

## General information for the graphs

Regression best fit calculation details for sensor type(s): bme280  
Graphs based on data INFLUX from influxdb on server lunar as user teus:  
Auto interval samples is (re)set to 1046 (avg+2\*stddev)  
Database table BdP\_8d5ba45f sensor (column) temp: 1702 db records, deleted 0 NaN records.  
Auto interval samples is (re)set to 1155 (avg+2\*stddev)  
Database table BdP\_3f18c330 sensor (column) temp: 1486 db records, deleted 0 NaN records.  
Collected 1702 values in sample time frame (19m/15s) for the graph.

Samples period: Jun 09 00:00 up to Jun 27 2017 00:00, interval timing 19m:15s.

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

number 1702, min=27.07, max=36.82

avg=30.40, std dev= 1.85

R-squared (R<sup>2</sup>) with BdP\_3f18c330/temp: 0.9189

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

BdP\_8d5ba45f/temp (bme280)-> best fit coefficients:

-4.540e+00, 1.123e+00

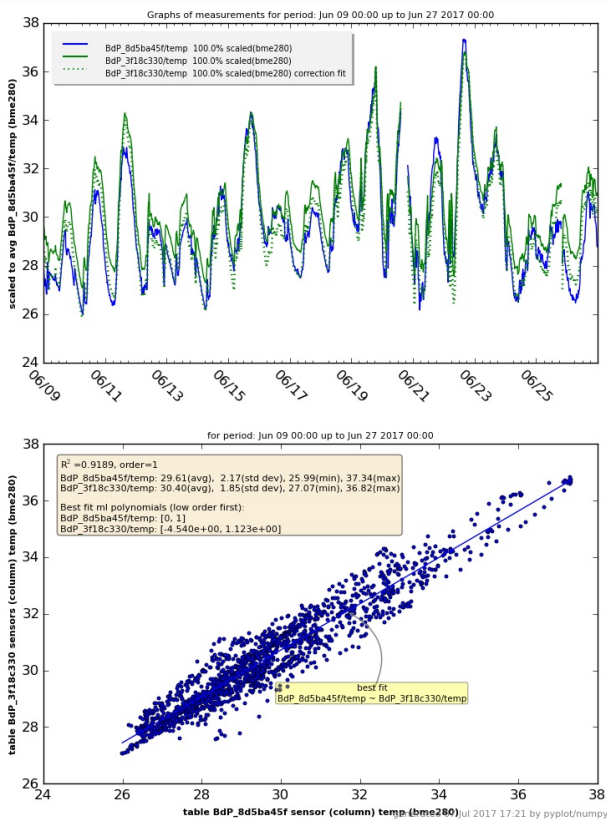
Statistical summary linear regression for BdP\_8d5ba45f/temp with ['BdP\_3f18c330/temp']:

### OLS Regression Results

Dep. Variable:	BdP_8d5ba45f/temp	R-squared:	0.919
Model:	OLS	Adj. R-squared:	0.919
Method:	Least Squares	F-statistic:	1.927e+04
Date:	Fri, 07 Jul 2017	Prob (F-statistic):	0.00
Time:	17:21:44	Log-Likelihood:	-1596.5
No. Observations:	1702	AIC:	3197.
Df Residuals:	1700	BIC:	3208.
Df Model:	1		

	coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_3f18c330/temp	-4.5401	0.246	-18.418	0.000	-5.024 -4.057

Omnibus:	13.253	Durbin-Watson:	0.111
Prob(Omnibus):	0.001	Jarque-Bera (JB):	13.864
Skew:	0.181	Prob(JB):	0.000976
Kurtosis:	3.253	Cond. No.	501.



# Correlation report for sensing temp: sensor type bme280 with dht22

Date of calculation: vr jul 7 17:21:46 CEST 2017  
From date 2017-06-09 upto 2017-06-27

## General information for the graphs

Regression best fit calculation details for sensor type(s): bme280, dht22  
Graphs based on data INFLUX from influxdb on server lunar as user teus:  
Auto interval samples is (re)set to 1046 (avg+2\*stddev)  
Database table BdP\_8d5ba45f sensor (column) temp: 1702 db records, deleted 0 NaN records.  
Auto interval samples is (re)set to 1156 (avg+2\*stddev)  
Database table BdP\_8d5ba45f sensor (column) temp: 1469 db records, deleted 0 NaN records.  
Collected 1702 values in sample time frame (19m/16s) for the graph.

Samples period: Jun 09 00:00 up to Jun 27 2017 00:00, interval timing 19m:16s.

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

number 1702, min=24.11, max=36.64

avg=28.17, std dev= 2.36

R-squared (R<sup>2</sup>) with BdP\_8d5ba45f/temp: 0.9787

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

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

3.926e+00, 9.117e-01

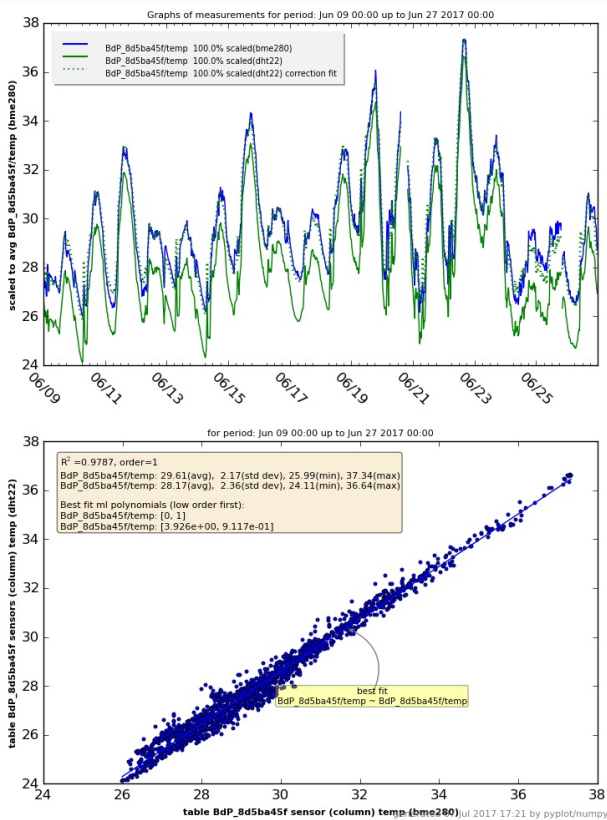
Statistical summary linear regression for BdP\_8d5ba45f/temp with ['BdP\_8d5ba45f/temp']:

### OLS Regression Results

<b>Dep. Variable:</b>	BdP_8d5ba45f/temp	<b>R-squared:</b>	0.979
<b>Model:</b>	OLS	<b>Adj. R-squared:</b>	0.979
<b>Method:</b>	Least Squares	<b>F-statistic:</b>	7.796e+04
<b>Date:</b>	Fri, 07 Jul 2017	<b>Prob (F-statistic):</b>	0.00
<b>Time:</b>	17:21:47	<b>Log-Likelihood:</b>	-460.45
<b>No. Observations:</b>	1702	<b>AIC:</b>	924.9
<b>Df Residuals:</b>	1700	<b>BIC:</b>	935.8
<b>Df Model:</b>	1		

	coef	std err	t	P> t	[95.0% Conf. Int.]
<b>BdP_8d5ba45f/temp</b>	3.9255	0.092	42.527	0.000	3.744 4.107

<b>Omnibus:</b>	54.584	<b>Durbin-Watson:</b>	0.280
<b>Prob(Omnibus):</b>	0.000	<b>Jarque-Bera (JB):</b>	70.926
<b>Skew:</b>	-0.351	<b>Prob(JB):</b>	3.97e-16
<b>Kurtosis:</b>	3.711	<b>Cond. No.</b>	340.



# Correlation report for sensing temp: sensor type dht22 with dht22

Date of calculation: vr jul 7 17:21:48 CEST 2017  
From date 2017-06-09 upto 2017-06-27

## General information for the graphs

Regression best fit calculation details for sensor type(s): bme280  
Graphs based on data INFLUX from influxdb on server lunar as user teus:  
Auto interval samples is (re)set to 1046 (avg+2\*stddev)  
Database table BdP\_8d5ba45f sensor (column) temp: 1702 db records, deleted 0 NaN records.  
Auto interval samples is (re)set to 1155 (avg+2\*stddev)  
Database table BdP\_3f18c330 sensor (column) temp: 1486 db records, deleted 0 NaN records.  
Collected 1702 values in sample time frame (19m/15s) for the graph.

Samples period: Jun 09 00:00 up to Jun 27 2017 00:00, interval timing 19m:15s.

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

number 1702, min=27.07, max=36.82

avg=30.40, std dev= 1.85

R-squared ( $R^2$ ) with BdP\_3f18c330/temp: 0.9189

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

BdP\_8d5ba45f/temp (bme280)-> best fit coefficients:

-4.540e+00, 1.123e+00

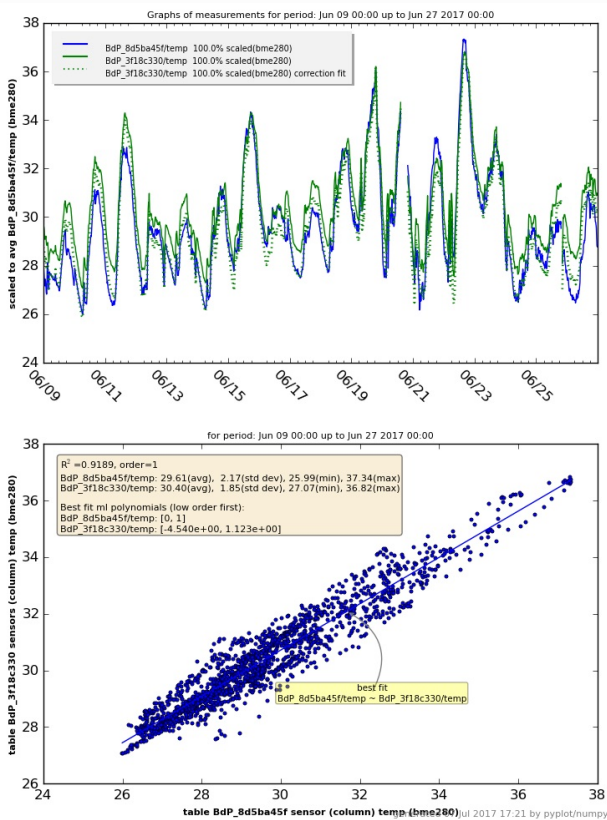
Statistical summary linear regression for BdP\_8d5ba45f/temp with ['BdP\_3f18c330/temp']:

### OLS Regression Results

<b>Dep. Variable:</b>	BdP_8d5ba45f/temp	<b>R-squared:</b>	0.919
<b>Model:</b>	OLS	<b>Adj. R-squared:</b>	0.919
<b>Method:</b>	Least Squares	<b>F-statistic:</b>	1.927e+04
<b>Date:</b>	Fri, 07 Jul 2017	<b>Prob (F-statistic):</b>	0.00
<b>Time:</b>	17:21:49	<b>Log-Likelihood:</b>	-1596.5
<b>No. Observations:</b>	1702	<b>AIC:</b>	3197.
<b>Df Residuals:</b>	1700	<b>BIC:</b>	3208.
<b>Df Model:</b>	1		

	coef	std err	t	P> t	[95.0% Conf. Int.]
<b>BdP_3f18c330/temp</b>	-4.5401	0.246	-18.418	0.000	-5.024 -4.057

<b>Omnibus:</b>	13.253	<b>Durbin-Watson:</b>	0.111
<b>Prob(Omnibus):</b>	0.001	<b>Jarque-Bera (JB):</b>	13.864
<b>Skew:</b>	0.181	<b>Prob(JB):</b>	0.000976
<b>Kurtosis:</b>	3.253	<b>Cond. No.</b>	501.



# Correlation report for sensing rh: sensor type bme280 with bme280

Date of calculation: vr jul 7 17:21:51 CEST 2017  
From date 2017-06-09 upto 2017-06-27

## General information for the graphs

Regression best fit calculation details for sensor type(s): bme280  
Graphs based on data INFLUX from influxdb on server lunar as user teus:  
Auto interval samples is (re)set to 1046 (avg+2\*stddev)  
Database table BdP\_8d5ba45f sensor (column) rh: 1702 db records, deleted 0 NaN records.  
Auto interval samples is (re)set to 1155 (avg+2\*stddev)  
Database table BdP\_3f18c330 sensor (column) rh: 1486 db records, deleted 0 NaN records.  
Collected 1702 values in sample time frame (19m/15s) for the graph.

Samples period: Jun 09 00:00 up to Jun 27 2017 00:00, interval timing 19m:15s.

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

number 1702, min=23.47, max=46.27

avg=32.88, std dev= 3.85

R-squared (R<sup>2</sup>) with BdP\_3f18c330/rh: 0.9166

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

BdP\_8d5ba45f/rh (bme280)-> best fit coefficients:

3.261e+00, 1.063e+00

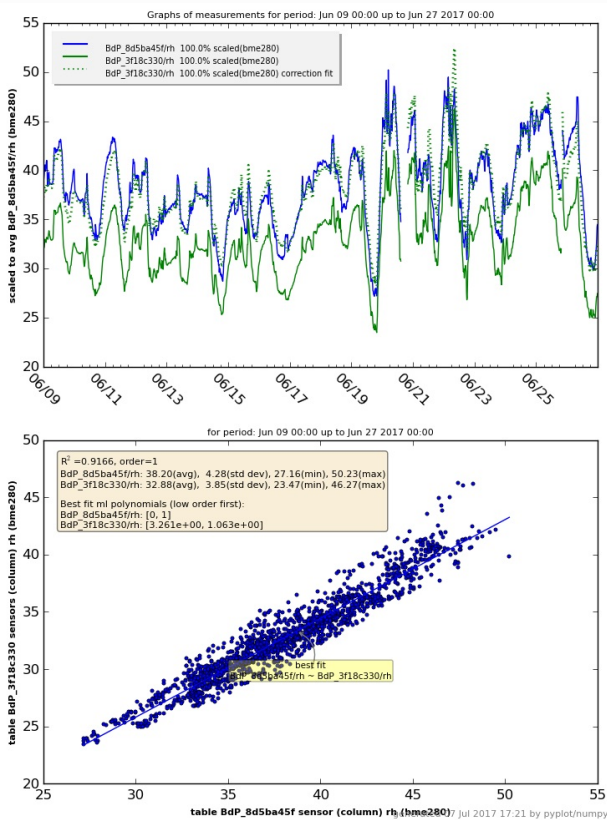
Statistical summary linear regression for BdP\_8d5ba45f/rh with ['BdP\_3f18c330/rh']:

### OLS Regression Results

<b>Dep. Variable:</b>	BdP_8d5ba45f/rh	<b>R-squared:</b>	0.917
<b>Model:</b>	OLS	<b>Adj. R-squared:</b>	0.917
<b>Method:</b>	Least Squares	<b>F-statistic:</b>	1.867e+04
<b>Date:</b>	Fri, 07 Jul 2017	<b>Prob (F-statistic):</b>	0.00
<b>Time:</b>	17:21:52	<b>Log-Likelihood:</b>	-2775.3
<b>No. Observations:</b>	1702	<b>AIC:</b>	5555.
<b>Df Residuals:</b>	1700	<b>BIC:</b>	5566.
<b>Df Model:</b>	1		

	coef	std err	t	P> t	[95.0% Conf. Int.]
<b>BdP_3f18c330/rh</b>	3.2611	0.257	12.668	0.000	2.756 3.766

<b>Omnibus:</b>	45.530	<b>Durbin-Watson:</b>	0.110
<b>Prob(Omnibus):</b>	0.000	<b>Jarque-Bera (JB):</b>	50.055
<b>Skew:</b>	-0.374	<b>Prob(JB):</b>	1.35e-11
<b>Kurtosis:</b>	3.382	<b>Cond. No.</b>	285.



# Correlation report for sensing rh: sensor type bme280 with dht22

Date of calculation: vr jul 7 17:21:53 CEST 2017  
From date 2017-06-09 upto 2017-06-27

## General information for the graphs

Regression best fit calculation details for sensor type(s): bme280, dht22  
Graphs based on data INFLUX from influxdb on server lunar as user teus:  
Auto interval samples is (re)set to 1046 (avg+2\*stddev)  
Database table BdP\_8d5ba45f sensor (column) rh: 1702 db records, deleted 0 NaN records.  
Auto interval samples is (re)set to 1156 (avg+2\*stddev)  
Database table BdP\_8d5ba45f sensor (column) rh: 1469 db records, deleted 0 NaN records.  
Collected 1702 values in sample time frame (19m/16s) for the graph.

Samples period: Jun 09 00:00 up to Jun 27 2017 00:00, interval timing 19m:16s.

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

number 1702, min=28.61, max=56.52

avg=43.11, std dev= 5.46

R-squared (R<sup>2</sup>) with BdP\_8d5ba45f/rh: 0.9726

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

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

4.916e+00, 7.720e-01

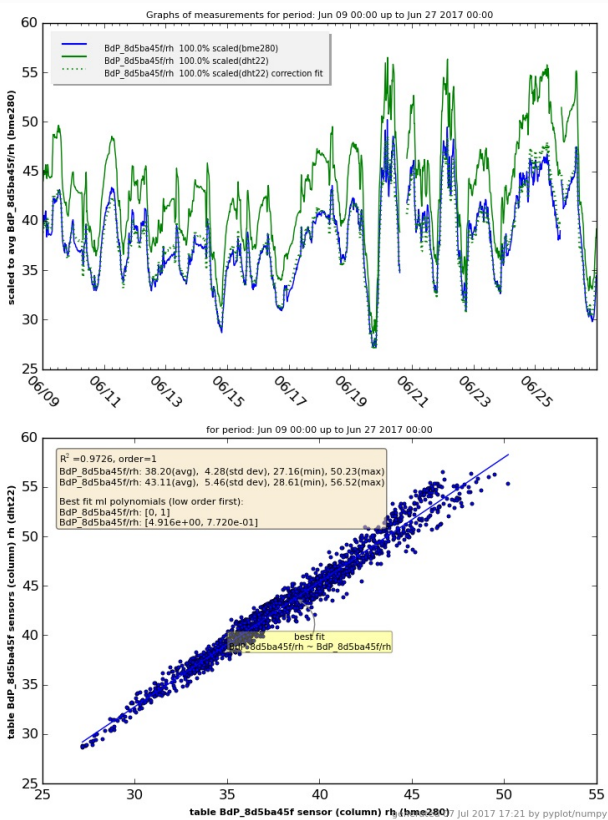
Statistical summary linear regression for BdP\_8d5ba45f/rh with ['BdP\_8d5ba45f/rh']:

### OLS Regression Results

<b>Dep. Variable:</b>	BdP_8d5ba45f/rh	<b>R-squared:</b>	0.973
<b>Model:</b>	OLS	<b>Adj. R-squared:</b>	0.973
<b>Method:</b>	Least Squares	<b>F-statistic:</b>	6.041e+04
<b>Date:</b>	Fri, 07 Jul 2017	<b>Prob (F-statistic):</b>	0.00
<b>Time:</b>	17:21:54	<b>Log-Likelihood:</b>	-1826.8
<b>No. Observations:</b>	1702	<b>AIC:</b>	3658.
<b>Df Residuals:</b>	1700	<b>BIC:</b>	3668.
<b>Df Model:</b>	1		

	coef	std err	t	P> t	[95.0% Conf. Int.]
<b>BdP_8d5ba45f/rh</b>	4.9159	0.137	36.012	0.000	4.648 5.184

<b>Omnibus:</b>	35.115	<b>Durbin-Watson:</b>	0.258
<b>Prob(Omnibus):</b>	0.000	<b>Jarque-Bera (JB):</b>	37.903
<b>Skew:</b>	0.324	<b>Prob(JB):</b>	5.88e-09
<b>Kurtosis:</b>	3.339	<b>Cond. No.</b>	346.





# Correlation report for sensing rh: sensor type dht22 with dht22

Date of calculation: vr jul 7 17:21:56 CEST 2017  
From date 2017-06-09 upto 2017-06-27

## General information for the graphs

Regression best fit calculation details for sensor type(s): bme280  
Graphs based on data INFLUX from influxdb on server lunar as user teus:  
Auto interval samples is (re)set to 1046 (avg+2\*stddev)  
Database table BdP\_8d5ba45f sensor (column) rh: 1702 db records, deleted 0 NaN records.  
Auto interval samples is (re)set to 1155 (avg+2\*stddev)  
Database table BdP\_3f18c330 sensor (column) rh: 1486 db records, deleted 0 NaN records.  
Collected 1702 values in sample time frame (19m/15s) for the graph.

Samples period: Jun 09 00:00 up to Jun 27 2017 00:00, interval timing 19m:15s.

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

number 1702, min=23.47, max=46.27

avg=32.88, std dev= 3.85

R-squared (R<sup>2</sup>) with BdP\_3f18c330/rh: 0.9166

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

BdP\_8d5ba45f/rh (bme280)-> best fit coefficients:

3.261e+00, 1.063e+00

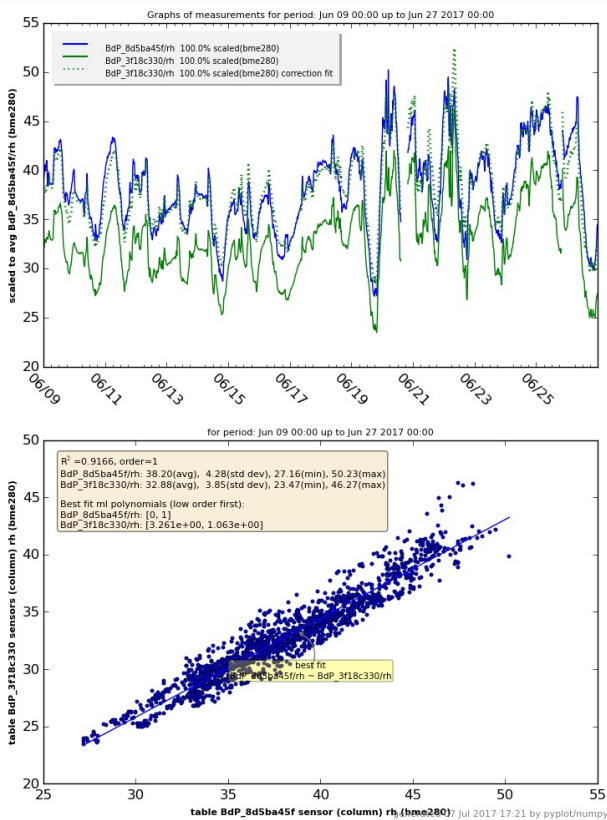
Statistical summary linear regression for BdP\_8d5ba45f/rh with ['BdP\_3f18c330/rh']:

### OLS Regression Results

<b>Dep. Variable:</b>	BdP_8d5ba45f/rh	<b>R-squared:</b>	0.917
<b>Model:</b>	OLS	<b>Adj. R-squared:</b>	0.917
<b>Method:</b>	Least Squares	<b>F-statistic:</b>	1.867e+04
<b>Date:</b>	Fri, 07 Jul 2017	<b>Prob (F-statistic):</b>	0.00
<b>Time:</b>	17:21:56	<b>Log-Likelihood:</b>	-2775.3
<b>No. Observations:</b>	1702	<b>AIC:</b>	5555.
<b>Df Residuals:</b>	1700	<b>BIC:</b>	5566.
<b>Df Model:</b>	1		

	coef	std err	t	P> t	[95.0% Conf. Int.]
<b>BdP_3f18c330/rh</b>	3.2611	0.257	12.668	0.000	2.756 3.766

<b>Omnibus:</b>	45.530	<b>Durbin-Watson:</b>	0.110
<b>Prob(Omnibus):</b>	0.000	<b>Jarque-Bera (JB):</b>	50.055
<b>Skew:</b>	-0.374	<b>Prob(JB):</b>	1.35e-11
<b>Kurtosis:</b>	3.382	<b>Cond. No.</b>	285.



# Correlation report for sensing pha: sensor type bme280 with bme280

Date of calculation: vr jul 7 17:21:58 CEST 2017  
From date 2017-06-09 upto 2017-06-27

## General information for the graphs

Regression best fit calculation details for sensor type(s): bme280  
Graphs based on data INFLUX from influxdb on server lunar as user teus:  
Auto interval samples is (re)set to 1046 (avg+2\*stddev)  
Database table BdP\_8d5ba45f sensor (column) pha: 1702 db records, deleted 0 NaN records.  
Auto interval samples is (re)set to 1155 (avg+2\*stddev)  
Database table BdP\_3f18c330 sensor (column) pha: 1486 db records, deleted 0 NaN records.  
Collected 1702 values in sample time frame (19m/15s) for the graph.

Samples period: Jun 09 00:00 up to Jun 27 2017 00:00, interval timing 19m:15s.

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

number 1702, min=100448.29, max=102301.36

avg=101380.44, std dev=429.97

R-squared (R<sup>2</sup>) with BdP\_3f18c330/pha: 0.9999

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

BdP\_8d5ba45f/pha (bme280)-> best fit coefficients:

-1.232e+02, 1.002e+00

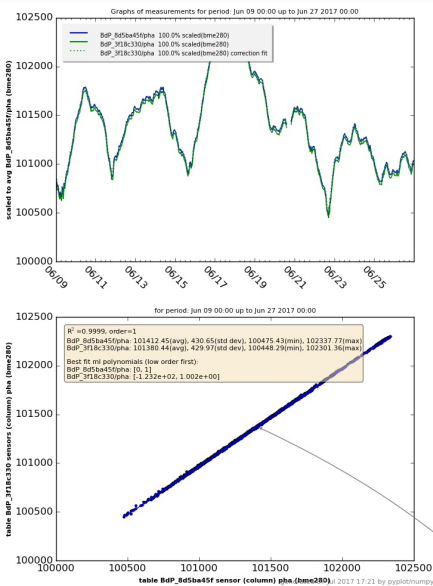
Statistical summary linear regression for BdP\_8d5ba45f/pha with ['BdP\_3f18c330/pha']:

### OLS Regression Results

<b>Dep. Variable:</b>	BdP_8d5ba45f/pha	<b>R-squared:</b>	1.000
<b>Model:</b>	OLS	<b>Adj. R-squared:</b>	1.000
<b>Method:</b>	Least Squares	<b>F-statistic:</b>	1.445e+07
<b>Date:</b>	Fri, 07 Jul 2017	<b>Prob (F-statistic):</b>	0.00
<b>Time:</b>	17:21:59	<b>Log-Likelihood:</b>	-5038.5
<b>No. Observations:</b>	1702	<b>AIC:</b>	1.008e+04
<b>Df Residuals:</b>	1700	<b>BIC:</b>	1.009e+04
<b>Df Model:</b>	1		

	coef	std err	t	P> t	[95.0% Conf. Int.]
BdP_3f18c330/pha	-123.2494	26.714	-4.614	0.000	-175.644 -70.854

<b>Omnibus:</b>	189.145	<b>Durbin-Watson:</b>	1.023
<b>Prob(Omnibus):</b>	0.000	<b>Jarque-Bera (JB):</b>	818.315
<b>Skew:</b>	-0.452	<b>Prob(JB):</b>	2.02e-178
<b>Kurtosis:</b>	6.274	<b>Cond. No.</b>	2.39e+07



best fit  
BdP\_8d5ba45f/pha - BdP\_3f18c330/pha