

# ENG5220: REAL TIME EMBEDDED PROGRAMMING

## Mouse-glove

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## **Project information related to COVID-19**

This project is part of the course ENG5220, Real time embedded programming, at the University of Glasgow. The university supplied the collaborators with all equipment needed to build it from scratch together with tutoring as well as lectures. Due to COVID-19, the University of Glasgow decided on March 14 to move all teaching off-campus. Thus, not all work could be finished as intended. The collaborators of this Mouse-glove highly encourage others to use, continue and improve what as of yet has been completed.

## Summary

In this project, a real-time embedded device, the Mouse-glove, was designed. It can emulate the mouse of a Raspberry Pi. Through I2C communication, the glove is able to control the cursor by detecting and calculating the device's movement. The IMU LSM9DS1 was used as a sensor to eventually get the position after digital signal processing and calculations. Moreover, the device can also emulate integral mouse button functions, including press and release of a button. An additional button is used to allow the user to reset the position of the cursor and a feedback vibrator activates at the same time. These functions of the Mouse-glove were implemented by multi-threading to ensure they are processing and responding independently.

All the button functions were performing as expected which has been proven by a prototype board. Relevant hardware (PCBs) were also designed and desired results were achieved. Even though the IMU stopped working towards the end of the project, which meant that it could not be tested in the system with other functions, its potential has been proven since the rough position of the glove could be obtained in earlier tests of the IMU and DSP by the manufactured PCB. Nevertheless, to obtain a more accurate position, further optimizations are suggested for continued work on the Mouse-glove.

## Table of Contents

1	Introduction . . . . .	1
2	Project approach . . . . .	1
2.1	Planning . . . . .	1
2.2	Hardware design . . . . .	1
2.2.1	Main board . . . . .	2
2.2.2	Expansion board . . . . .	3
2.3	Processing of sensor data . . . . .	4
2.3.1	Preprocessing . . . . .	5
2.3.2	Postprocessing . . . . .	6
2.4	Cursor and button functions implementation . . . . .	7
2.5	Testing . . . . .	7
2.5.1	Hardware design . . . . .	8
2.5.2	Processing of sensor data . . . . .	8
2.5.3	Threading . . . . .	10
3	Conclusions . . . . .	11
	References . . . . .	12
	Appendices . . . . .	13
	Appendix A: PCB of Main board . . . . .	13
	Appendix B: Raw acceleration data . . . . .	14
	Appendix 3: Processed data . . . . .	31

# 1 Introduction

The aim of this project was to create a wireless glove that acts as a mouse on a Raspberry Pi. The user of the glove is able to control the pointer with the motion of their hand and do right and left clicks just like with a regular computer mouse. A reset button was also implemented, giving the user feedback when pressed. By using an IMU, acceleration data was extracted and converted into position data. The communication between the Raspberry Pi and the Mouse-glove was established by an I2C bus. The buttons for the different clicks were enabled by using electrodes that act once they touch a ground electrode. In this report, the following sections will be treating how this project was carried out, starting with how the project was planned. Then, the hardware design will be presented succeeded by how the conversion of acceleration data into position data was achieved. Thereafter, the mouse function implementation and threading of the project will be reviewed as well as the testing. All this will be followed by a conclusion.

## 2 Project approach

In this section, the project approach is presented. It includes all steps made from starting the project to finishing it. The planning, hardware design, filtering, mouse function implementation, threading and testing are shown in the mentioned order.

### 2.1 Planning

The project planning began as soon as the idea of a Mouse-glove was presented. Initially, the work was parted into three main parts and each collaborator worked on their part individually. Simultaneously, throughout the collaboration, weekly meetings were held to update each other on statuses of individual work, discuss new ideas, create new plans, and help each other with issues that arose. When the main parts were close to be completed, the interaction between the collaborators increased. During the latter part of the project, meetings still continued online, and communication was held effectively even in between the planned meetings.

### 2.2 Hardware design

The IUM LSM9DS1 from STMicroelectronics [1] was utilized as the sensor obtaining the position data of the Mouse-glove to emulate the mouse move-

ment by moving the hands. Three switches were used as two mouse buttons and one position reset button. Each switch was constructed by two electrodes. By setting the input PIN as pull-up mode, the GND electrode could be shared as an input signal. The Mouse-glove also includes a feedback unit, a vibrator, that acts when the user resets the cursor position. A motor drive circuit is necessary due to the limited drive ability of GPIO.

Because of the distance limit of I2C bus, a pair of I2C buffers from Texas Instruments P82B96 [2] were used. Therefore, two PCBs were necessary for the Mouse-glove. The main board contains most of the required circuits attached on the glove. The expansion board with I2C buffer unit terminates Raspberry Pi GPIOs.

### 2.2.1 Main board

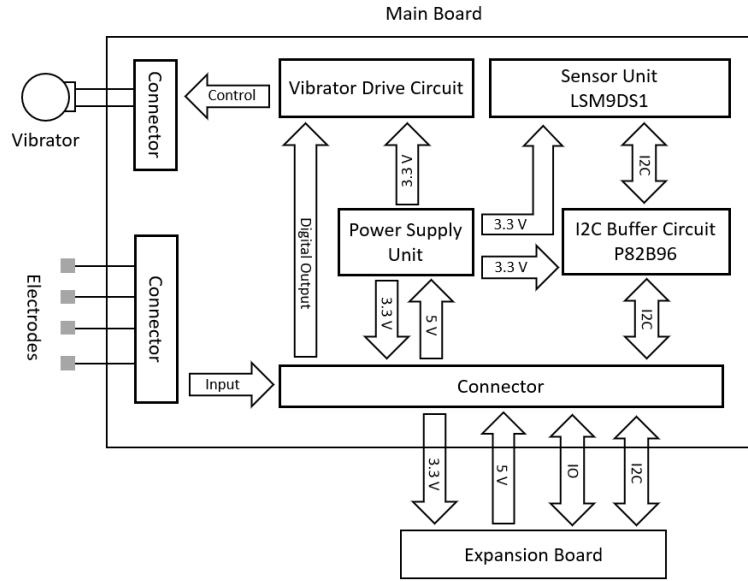


Figure 1: The structure of Main board by units.

The main board attached on the glove contains the a sensor unit, a power unit, an I2C unit and a vibrator drive circuit. The schematic is shown in figure 1. For the power supply, considering the drive ability of the Raspberry Pi and the 5 V I2C bus requirement between two boards. The main board is powered by 5 V from the Raspberry Pi through expansion board instead 3.3 V. A 3.3 V LDO is employed to provide 3.3 V to the ICs and vibrator. The regulated 3.3 V also gives feedback to the expansion board to drive the I2C

buffer on it. The maximum current of the LDO is 100 mA which is enough for the application.

By referring to the data sheet of LSM9DS1 [1], the sensor unit was designed to obtain the raw data of acceleration from the IMU by I2C. The I2C buffer P82B96 is then utilized with proper pull-up resistors and signal stocky diodes to ensure the reliability of I2C communication between the two boards.

A 60 mA 3.3 V vibrator used in Mouse-glove as feedback was controlled by a digital output IO of the Raspberry Pi. To protect the IO and ensure the drive ability, a drive circuit was integrated in the main board. The MOS-FET which is controlled by a pull-down output was employed to isolate the current flow through the vibrator. Meanwhile, a 1A rectifier and a capacitor was lumped to avoid current overflow potentially caused by stopping the vibrator. The vibrator could be connected to the main board through the two-pin connector. The four-pin connector offers the connections to the electrodes. The connection of I2C bus, power supply and feedback, and switches through expansion board to Raspberry Pi was implemented by the other two connectors.

## 2.2.2 Expansion board

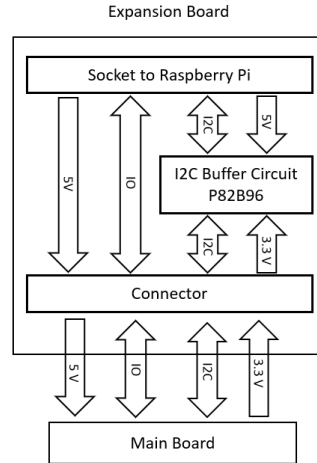


Figure 2: The structure of expansion board connected to Raspberry Pi

To terminate the I2C bus with buffer to Raspberry Pi, an expansion board with I2C buffer circuit is necessary. The circuit of I2C buffer is the same

as in the circuit in main board. Moreover, the digital IO and 5 V power supplied from Raspberry Pi were also transferred by the expansion board. This board was powered by 3.3 V feedback from the main board. It should be noted that each input electrode of switches emulating mouse button was connected to two GPIOs of the Raspberry Pi. It is because there are two actions, press and release, of one mouse button in practice. The Mouse-glove used interrupt to execute the process when a falling-edge or raising-edge was detected. The schematic of the expansion board is shown in figure 2.

## 2.3 Processing of sensor data

Position data from the glove that correspond to points on the computer screen are required. To achieve this, the IMU sensor LSM9DS1 was used as mentioned previously. It features a 3D digital linear accelerometer, a 3D digital gyroscope and a 3D digital magnetometer. It also includes both an I2C serial bus interface as well as a SPI serial standard interface [3]. To extract position data, only the accelerometer was used through the I2C serial bus interface in the yz plane.

In order to get the position in each point from the accelerometer, numerical double integration needs to be performed. By doing this however, errors will occur. One of the problems that is faced is that numerical integration is an approximation to a continuous signal. Another, more extensive concern, is that the presence of noise causes the output to have a root mean square value that increases with time [4]. To make these errors as insignificant as possible, various solutions have been tested and will be presented below.

When choosing an integration method, it needed to both reduce the error that occurs due to the numerical approximation as well as a method that will be fast enough for this real time application. Therefore, the trapezoidal integration rule seen in equation 1 was used.

$$I_i = I_{i-1} + \frac{y_i + y_{i-1}}{2}dT \quad (1)$$

Where  $I_i$  is the current integral value at sample  $i$ ,  $I_{i-1}$  is the previous integral value,  $y_i$  and  $y_{i-1}$  are the current and previous values at sample  $i$  and  $i - 1$  that should be integrated and  $dT$  is the time between two samples. For this project, a sampling rate of 100 Hz was used, making  $dT = 0.01$ .

For reducing the impact of the noise, a more extensive approach was completed. Both preprocessing, i.e. setting restrictions on what data should be



measured, and postprocessing, i.e. processing data once it has been measured, was carried out.

### 2.3.1 Preprocessing

To prevent the data to be corrupted by white noise, a restriction was put on what acceleration data should be non-zero. To assure that a correct threshold value was chosen, data was collected both in the y and z points when the sensor was resting. The data points can be found in appendix 3. The expected value on the acceleration would thus be zero, and other values are noise. Following graphs were made out of four different data sets of the resting accelerometer:

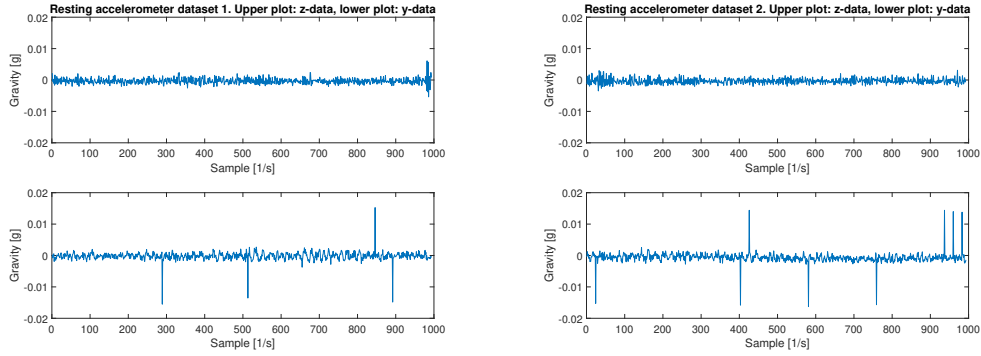


Figure 3: Accelerometer data for resting sensor. The left figure shows the first dataset with 1000 measurements where the upper plot is z-data and the lower y-data. The right figure is the second dataset with 1000 measurements where the upper plot is z-data and the lower y-data.

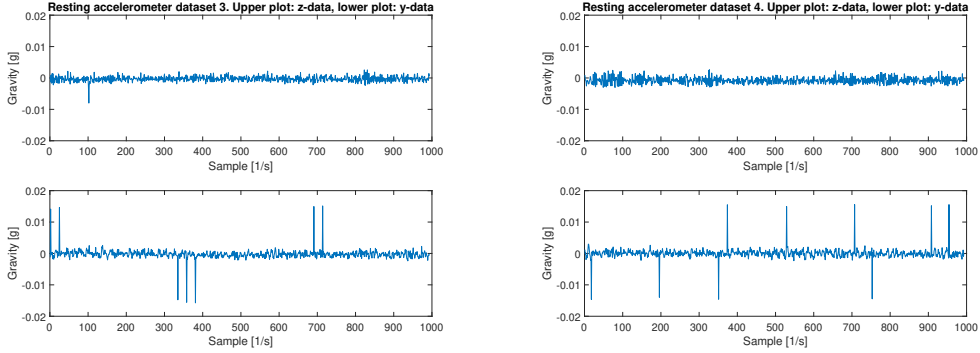


Figure 4: Accelerometer data for resting sensor. The left figure shows the third dataset with 1000 measurements where the upper plot is z-data and the lower y-data. The right figure is the fourth dataset with 1000 measurements where the upper plot is z-data and the lower y-data.

Both figure 3 and figure 4 present similar results. Especially when it comes to the measurements from the y-direction, a trend of noise close to  $\pm 0.015$  g can be seen. Based on this data, a threshold of registering data from both z and y was set to  $\pm 0.015$ . If the values of the sensor are between  $(-0.015, 0.015)$ , they are set to zero. Applying this threshold is equivalent to a high pass filter in the frequency domain.

### 2.3.2 Postprocessing

Once the data is preprocessed, it needs postprocessing as well to give reliable position results. Therefore, an 8th order lowpass Butterworth filter was used with cutoff frequency 5 Hz. The cutoff frequency was chosen based on previous studies with accelerometers in similar applications [5] [6]. After the threshold in the preprocessing step and the filtering in the postprocessing, the acceleration data has been bandpass filtered as desired.

Hereafter, the filtered acceleration data was intended to be integrated. However, when integrating the acceleration to velocity, drifting of velocity still occurred, causing the position data to drift as well. Due to the chosen integration method adding up previous values of integration as well as the calculation of a current integral, the velocity appeared to be constant even though the acceleration was zero. Thus, when moving the sensor additionally, the starting point of the velocity was not zero, which caused the drift. To prevent this from occurring, a counter that keeps track of the amount of times the acceleration is zero was implemented. Whenever the counter

reaches five, the integral calculating the velocity is set to zero. Using this method, the velocity stopped drifting and more reliable position data could be achieved.

## 2.4 Cursor and button functions implementation

This project used multithreading to achieve multitasking. A multi-threaded program contains two or more parts that can run simultaneously. Each part of such a program is called a thread, and each thread defines a separate execution path [7].

When the user runs the application, a window will appear where the user could click on a button to get explanations on usage as well as a button that starts the application. Once the user clicks on the start button, the main program starts running. The default position of the mouse cursor is the top left corner of the screen. Xdotool, a software which can simulate keyboard input and mouse activity, was installed in advance to connect the actions of the Mouse-glove to the computer screen. In the code, the position data can be automatically shared with the specific function of Xdotool at 5 Hz. Thus, the glove can move like a real mouse. Three threads were used; one for a mouse-click event, one for resetting the position, and one for the movement of the cursor.

WiringPi, a PIN based GPIO access library, was used to achieve click functions. The default potential of the pin connected to the electrode was low. If the user presses the electrode, the pin would be short-circuited with the ground and become a high potential. Hence, the user's operation can be distinguished according to the change in potential. Meanwhile, WiringPi will send the click command to the system that the low potential is released and the high potential is pressed. The left and right electrodes correspond to the left and right buttons of a real mouse, respectively. Two electrodes were connected to different Pins. The user can send a left or right click order to the system via pressing the corresponding electrode. Finally, the user can reset the position of the cursor by the reset electrode and feel the vibration from the vibrator.

## 2.5 Testing

To test the Mouse-glove, different approaches were made. The application was mainly tested through running code and expecting a certain result. To achieve this, both undocumented tests and unit testing were performed. This

section will treat how testing was carried out on hardware, sensor data extraction and threading.

### 2.5.1 Hardware design

Both main board and expansion board were tested successfully by prototype boards based on thematic design. The PCB layout was also finished during the project. However, due to the effect of COVID-19, only the main board was printed and soldered as shown in appendix 3. The sensor unit and power supply unit work as expect according to testing based on *LSM9DS1* library and *Filter* library. The rough position of the glove could be obtained. Unfortunately, at the later phase of the project, the sensor unit did not work. It is more likely caused by accidental hardware damage than by hardware design flaws since it worked in previous testing. Nevertheless, because of the equipment limitation, it is difficult to troubleshoot the issue caused main board failure.

In this case, in aspect of hardware, only electrode-based switches, which emulate mouse button or reset the mouse position, were tested by *Mouse* library in the condition of multi-threads. It performed as real-time response in multi-threads which achieved the expectations.

### 2.5.2 Processing of sensor data

The testing of the acceleration data conversion to position was conducted through both unit testing and plotting data in Matlab. The unit tests were used to verify that the coding was performing as intended. The plotting of data was used to see whether the filtering and integration were effective enough to achieve position data from the LSM9DS1 sensor. To see how reliable the produced position data was, the sensor was moved a certain amount of centimeters both in the z and y direction. Then, the measured and processed data was plotted and compared to the known movement of the sensor.

All data used when evaluating the performance of the processing was not saved, and other issues arose with the hardware leading to a lack of results that could be further improved as well as included in this report. The last saved data with plots does not have enough movement demonstrations in both directions and has an insufficient amount of samples to properly show how the processing is performing. However, the plot will still be included below and the data points can be found in appendix 3.

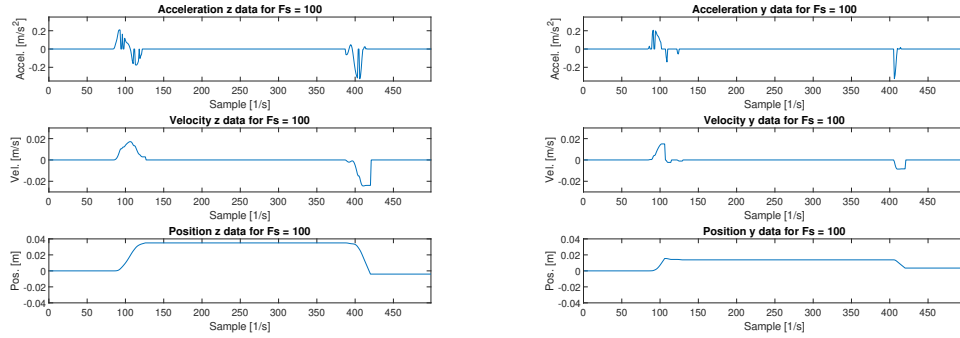


Figure 5: Acceleration, velocity and position data for a 5 cm movement in the positive z direction. The left plot shows data from the z points and the right plot shows data from the y points.

Figure 5 is showing the only documented controlled movement before the hardware caused the program of the Mouse-glove to not be able to read data from the sensor. The sensor was moved 5 cm in a positive z direction and then back to the starting point. The reason there were not multiple saved test data sets is due to each data set being named the same as the previous one to save time when plotting. Although this data is insufficient to demonstrate how the filtering and integration behaves, the previous measurements were similar to the one in figure 5. The results are not reaching a quality that would be satisfying, but are rather acceptable.

### 2.5.3 Threading

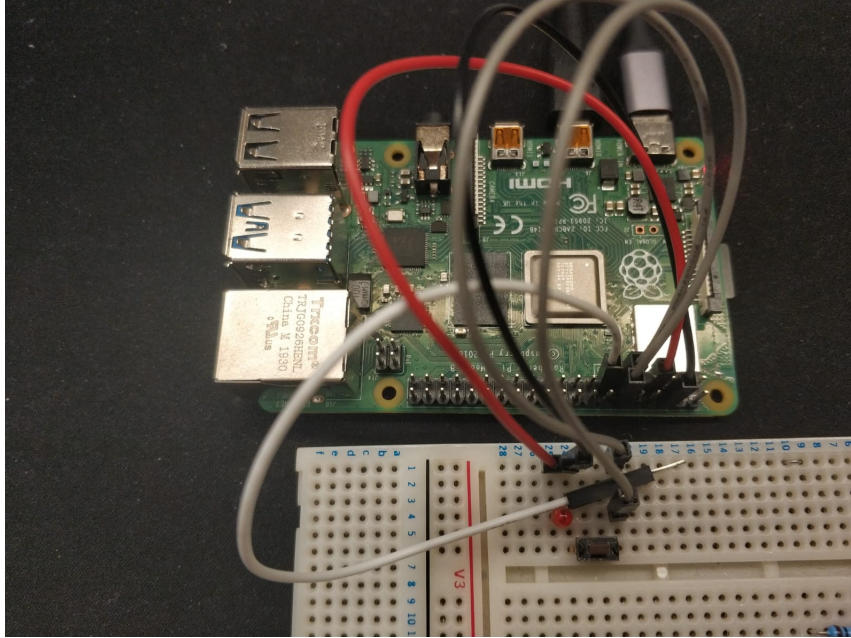


Figure 6: The example structure of Thread test.

Thread-based multitasking is the concurrent execution of fragments of the same program. A “Click-tst.cpp” file was created to test basic functions (Mouse click and position reset) of the Mouse-glove. Figure 6 shows the structure of the connection in the test.

Cables were connected to the IO, and the vibration motor was replaced by a Led to detect whether there is output. The grey line indicated the mouse button. There were two to detect the rising and falling edges. The black wire indicated the ground. The white wire was to detect the reset. Short-circuiting the black wire was equivalent to pressing the switch. Being limited to insufficient switches, the test on left and right buttons of the mouse were interchanged. Switching the Pin connected by the grey cable could test the left and right buttons separately.

When the black wire and the white wire are short-circuited, the LED light will flash once. When the black wire and the two grey wires are short-circuited, the system can receive high-level and low-level signals. Therefore, it can be proved that the program runs as expected.

### 3 Conclusions

Due to the COVID-19 situation, this application could not be tested in its full conformation, i.e. from having a user open the GUI, pressing the start button and to begin using the Mouse-glove. However, the separate parts have been proven to function and therefore the project is showing potential to being used as intended. Although the sensor unit was not working towards the end, there were no indications showing that the design was insufficient, since the hardware worked in previous testing. Because of the equipment limitations during lock-down, no troubleshooting could be performed. Being unable to get further sensor data from the hardware, the processing was also affected. The presented plot in figure 5 is showing that the processing works, although not ideally. It is also not enough to prove that it always performs in this manner, yet no further data could be included in this report. The rest of the Mouse-glove application is successful, and suggestions to further improvements of this project would mainly be in regards to the filtering process. Changes could be made by tweaking the threshold values, the counter or the Butterworth filter order. Another part that could be evaluated additionally with the Mouse-glove would be to have users try the glove and then give their points of view on how the GUI or design of the glove could be improved. The collaborators of this application are leaving all future improvements to whomever would like to continue with this project.

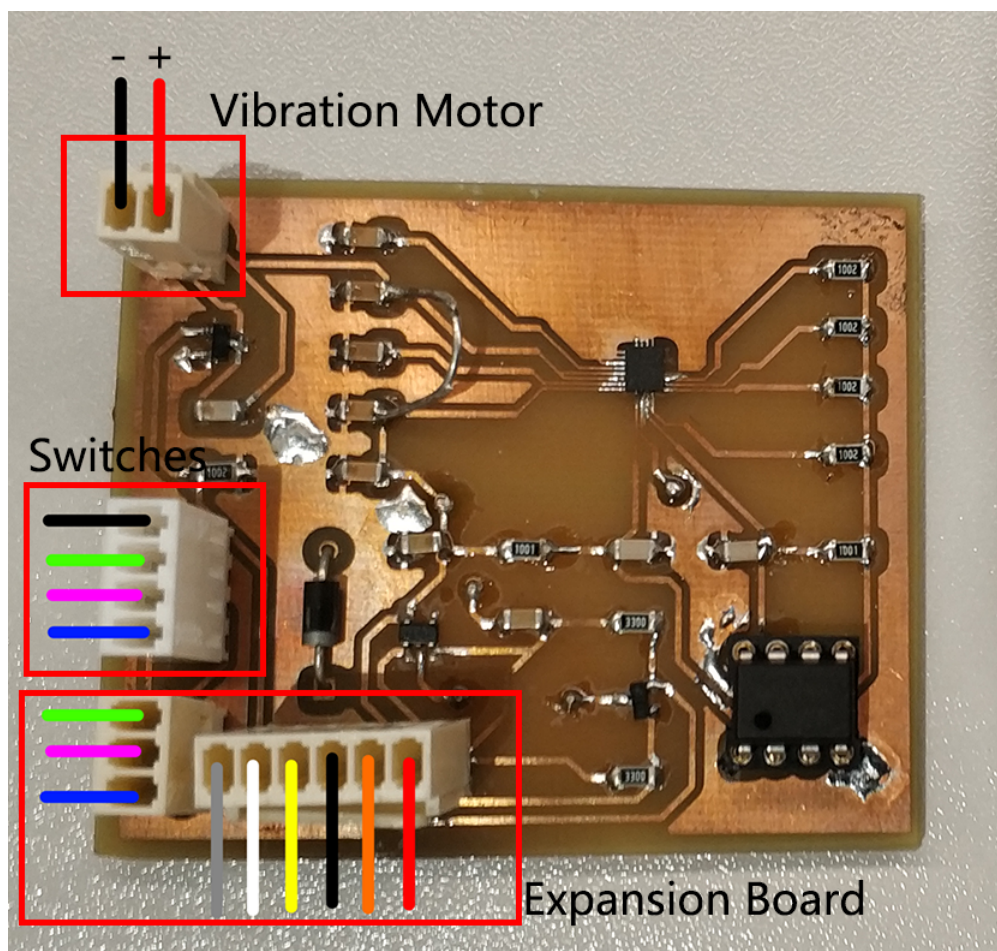
## References

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## Appendices

### Appendix 1: PCB of Main board



## Appendix 2: Raw acceleration data

z-data 1	y-data 1	z-data 2	y-data 2	z-data 3	y-data 3	z-data 4	y-data 4
0.000671	0.001160	-0.001343	-0.000793	0.000183	0.001709	0.002075	0.000732
-0.002319	0.001648	0.000305	-0.001282	-0.001892	0.001770	-0.002197	-0.014893
-0.001282	0.002869	-0.001404	0.000671	0.001221	0.001404	-0.001770	0.000061
-0.000793	0.000549	-0.001160	0.000244	-0.002014	0.000610	-0.001221	-0.000061
-0.000183	0.000549	0.000061	0.000732	0.002991	0.002014	-0.001404	0.000244
-0.001404	-0.000427	0.000671	-0.000610	0.000366	0.001465	-0.001892	0.000488
-0.001526	-0.000305	-0.000061	-0.000122	0.000366	0.001099	-0.000671	-0.000610
0.002197	0.000183	-0.001282	-0.000488	0.000244	-0.001221	0.000916	0.001221
0.000000	-0.000793	0.001099	0.001221	-0.001282	0.014160	-0.000366	-0.000244
-0.000549	0.000244	0.001221	0.000122	0.000916	-0.000427	-0.000732	0.000183
0.000244	0.000061	-0.001404	-0.000061	-0.001648	-0.000366	-0.001099	-0.001953
-0.001038	0.000549	-0.001526	0.000427	-0.000916	-0.000305	-0.002563	-0.001404
-0.000854	-0.001892	-0.000183	-0.000916	0.001404	0.000366	-0.001282	-0.000488
-0.001648	-0.000732	0.001648	-0.000488	-0.001526	-0.001709	-0.000732	-0.001404
0.001587	-0.000732	-0.001953	-0.000549	0.001343	-0.001404	-0.000916	-0.000610
-0.000610	-0.001160	-0.000916	-0.001953	-0.002197	-0.000610	-0.000916	0.001099
-0.001282	-0.001526	-0.000244	-0.001831	-0.000244	-0.001831	-0.001892	0.002991
-0.000061	-0.000427	-0.000366	-0.001892	0.000000	-0.000916	-0.001892	0.002869
-0.000916	-0.001038	-0.001526	-0.000549	-0.001587	-0.001282	-0.001770	0.001953
0.001099	0.000122	0.000366	-0.000427	-0.000549	0.000183	-0.000916	0.000610
-0.001343	0.000000	0.002197	-0.000488	-0.000305	0.000488	-0.000549	-0.000366
-0.001404	-0.000122	0.001770	0.000061	-0.000366	0.000977	0.000427	-0.000854
0.000427	0.000000	-0.000549	0.001038	0.000732	0.001099	0.000061	-0.002136
-0.000244	0.000610	-0.000183	0.001221	-0.001465	0.000732	-0.000793	-0.001953
-0.001038	-0.000122	-0.000061	0.001099	0.000427	0.000244	-0.001587	-0.014648
-0.000183	-0.000366	-0.000977	-0.000122	-0.000366	0.000732	-0.001892	0.000366
0.000366	-0.000305	-0.000732	0.000549	-0.000549	-0.001221	-0.002075	0.000549
-0.000122	-0.000732	-0.001221	0.000183	-0.001648	0.000244	-0.001099	-0.000732
-0.000610	0.000305	0.000671	-0.000488	0.000061	-0.000793	-0.002014	0.000793
0.000488	0.000366	-0.001160	0.000061	0.001282	-0.000183	0.001160	0.000793
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0.000977	-0.000366	0.000916	-0.000183	-0.000366	0.014648	-0.002319	-0.000488
-0.000732	-0.001221	0.000977	-0.000488	0.000610	-0.000244	-0.000732	-0.000610
-0.000305	-0.000793	-0.000366	-0.000427	0.000183	-0.000854	0.001831	0.000488
-0.000488	-0.000610	0.000366	-0.000305	-0.000244	0.000061	-0.000854	-0.000183
-0.000488	-0.000916	0.001343	-0.002502	-0.000122	-0.000427	-0.002808	0.001160
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0.000732	0.000122	-0.001831	-0.000427	0.000549	0.000122	-0.002197	-0.000427
-0.000244	-0.000916	0.002991	-0.000610	-0.000427	0.000122	-0.000366	0.000488
-0.000610	0.000671	0.002014	0.000732	0.000000	0.000061	-0.000366	0.000061
0.000244	0.000305	-0.001648	0.001465	-0.000427	0.000366	-0.000305	-0.000610
-0.001831	-0.000244	0.002380	-0.000488	0.000000	0.000244	-0.000854	-0.000488
-0.001038	-0.000122	0.002625	-0.000427	-0.001526	0.000183	-0.000916	-0.000366
-0.000305	-0.000244	-0.001526	-0.000244	-0.001343	-0.000549	-0.000427	0.000671
0.001038	0.000000	-0.002625	0.000793	-0.000916	-0.001160	0.000000	0.000793
-0.000122	0.001465	-0.000488	-0.000366	0.000732	0.000366	-0.001160	0.000549
-0.000916	0.000671	0.001404	-0.001465	-0.000061	0.000122	-0.000305	-0.000488
-0.000061	0.000366	-0.002075	0.000916	-0.000793	0.000000	-0.001282	-0.000183
-0.000244	-0.001404	-0.000549	0.000366	-0.000488	-0.000549	-0.001831	-0.001099
-0.001221	-0.000061	0.002625	0.000061	-0.000732	0.001770	-0.002258	-0.001282
-0.001221	-0.000671	0.002686	-0.001709	-0.000427	-0.000183	-0.000610	-0.001343
0.000610	-0.000122	-0.002075	0.000610	0.000122	0.000977	0.000854	-0.000244
0.000000	0.000488	-0.001831	0.001099	0.002136	0.001526	-0.000122	0.000366
-0.000183	0.000427	0.000183	-0.001160	-0.000488	-0.000061	-0.001221	0.000061
-0.000549	-0.000305	0.000244	-0.001282	-0.000977	0.000671	-0.002991	0.000732
0.000244	-0.000366	-0.001770	-0.000610	-0.000671	-0.001038	-0.002197	0.000671
-0.000488	-0.001160	-0.001038	-0.000366	-0.000183	-0.001160	0.001587	0.000854

-0.000366	-0.001831	0.002075	-0.000427	-0.000366	-0.002014	0.001709	0.000671
-0.002014	-0.000610	-0.001160	0.000305	-0.001953	-0.000061	-0.002686	-0.000488
-0.000061	0.000244	-0.001709	0.000244	0.001709	0.000671	-0.001770	0.000305
-0.000305	0.000427	-0.000549	-0.001343	-0.000061	0.000488	0.001526	0.001465
0.000305	0.000671	0.000183	-0.000671	0.000244	0.000122	-0.000610	0.000488
-0.000427	0.001648	-0.000061	-0.000610	-0.000732	0.000610	-0.002869	0.001587
-0.000427	0.001038	-0.001343	-0.000610	-0.000732	0.000000	-0.001404	-0.000122
-0.000916	0.001282	0.001465	-0.001038	-0.000122	0.001160	-0.000610	0.000427
0.000000	-0.000671	-0.001221	-0.000061	-0.000305	-0.001038	-0.002380	-0.000244
0.000549	-0.000793	-0.002014	0.000610	-0.000122	-0.000854	-0.002441	0.001221
0.000977	-0.000977	-0.001465	0.000916	0.000610	-0.000671	0.002258	-0.001160
-0.000793	0.000000	0.000305	0.000000	-0.001587	-0.000244	0.001648	0.000610
0.000793	-0.000977	0.002197	-0.001465	-0.000732	0.001221	-0.001099	0.001038
0.000916	-0.001648	-0.001160	-0.000488	-0.000305	0.001526	-0.000061	-0.000488
-0.001404	0.000305	-0.000366	-0.000122	-0.000549	0.000671	0.001160	-0.001099
-0.001465	-0.000122	0.000671	-0.000549	-0.001221	0.000488	-0.000977	-0.000916
0.002014	-0.000122	-0.001465	-0.001831	-0.000427	-0.000061	-0.002075	-0.000732
0.000061	-0.000122	-0.002075	-0.000732	0.000061	0.000671	-0.002502	0.000854
-0.001282	-0.000061	-0.000977	0.000122	-0.000122	-0.000854	0.001343	0.000244
-0.002014	-0.001160	0.001221	-0.000671	-0.001648	-0.001343	-0.001892	0.000305
-0.000671	-0.001221	0.000000	-0.000366	-0.000427	-0.000610	-0.002502	0.001465
-0.000183	-0.000549	-0.000183	-0.000854	0.000183	0.000488	-0.000610	-0.001221
0.000488	-0.000916	-0.000488	-0.000305	0.000244	-0.000122	0.002441	0.000793
-0.000916	-0.000427	-0.000610	-0.000122	-0.000732	0.001587	0.000732	0.002075
0.001038	-0.000244	-0.000366	-0.000732	-0.001465	0.001099	-0.000793	0.000183
0.000732	-0.000122	-0.000854	-0.000488	-0.000610	0.001770	0.001282	-0.000061
-0.001099	0.000000	-0.000732	-0.000427	-0.000427	0.000610	-0.000427	-0.000671
-0.000854	-0.000244	-0.001282	-0.001282	-0.000793	0.000244	-0.002686	-0.001648
0.000549	-0.000671	-0.000366	-0.002014	-0.000671	0.000305	-0.003052	-0.000793
-0.000488	0.000977	0.000427	-0.000793	-0.000488	0.001465	0.000122	0.000488
0.000061	0.000549	0.000244	0.000000	-0.000305	0.000183	-0.000671	0.000305
-0.000366	-0.001343	-0.000488	-0.000244	-0.000610	-0.000488	0.000244	0.001160
-0.001526	-0.000610	-0.000977	-0.000488	-0.000305	0.000854	-0.000244	-0.000244
-0.000366	0.000122	-0.001282	0.000366	0.000122	0.000488	-0.000671	0.000183
-0.000305	0.000610	-0.000610	0.001587	-0.001038	0.000061	-0.002563	-0.000916
-0.000305	0.000244	-0.000122	-0.000244	0.000000	0.000427	-0.002625	-0.000916
0.000854	-0.000122	0.000061	-0.000244	-0.001404	0.000061	0.001099	0.000549
0.000549	-0.000916	-0.000671	-0.000122	0.000610	-0.000916	-0.002563	-0.000610
-0.000488	-0.001221	-0.000183	-0.000671	-0.000916	-0.000427	-0.002686	0.000122
0.000305	-0.002014	-0.000732	-0.001831	-0.000916	-0.000671	-0.000732	0.000305
-0.000427	-0.000916	-0.001404	-0.001099	-0.000305	-0.000793	0.001953	-0.000488
-0.000610	-0.000549	-0.000977	-0.002380	-0.001526	-0.000427	-0.002502	-0.000366
0.000366	0.000000	0.000000	-0.002319	0.000183	-0.001038	-0.001648	0.000427
-0.000427	-0.000488	-0.000183	-0.000183	-0.000549	0.000916	-0.000122	0.002014
-0.001038	0.000854	0.000977	-0.000183	-0.000793	0.001709	0.002075	0.000671
-0.000488	0.000732	-0.001038	0.001038	0.000488	0.000916	-0.002380	-0.000977
-0.001282	0.000305	-0.001099	0.000854	0.000305	0.001099	-0.002441	-0.000244
-0.000610	-0.001404	-0.000122	0.000549	-0.000671	0.000793	0.000183	-0.000061
-0.000977	-0.000061	-0.000305	0.000671	0.000244	-0.000061	-0.001038	0.000122
0.000366	0.000000	-0.000488	-0.000244	-0.003296	0.001038	-0.001892	0.000244
-0.000488	0.000977	-0.000488	0.000488	-0.007996	0.000977	-0.000610	-0.000061
0.001160	0.000793	0.000610	-0.001770	-0.002380	0.002502	0.000061	0.001282
-0.000977	0.000732	0.000000	-0.002014	-0.001099	-0.000183	-0.000854	0.000793
-0.000305	0.001770	-0.001465	0.000244	-0.001831	-0.000122	-0.000916	0.000000
-0.000061	0.001953	-0.000793	-0.000183	-0.000549	0.000366	-0.000610	0.000000
-0.001038	0.000061	-0.000610	-0.001038	0.000732	-0.000183	-0.000366	0.000488
-0.001343	0.000427	-0.001404	-0.001099	-0.000122	0.000366	-0.001160	0.000488
-0.001831	0.001099	-0.000916	-0.001892	0.000122	-0.000366	-0.001160	0.000122
-0.000427	0.000122	0.000000	-0.000061	-0.000305	0.000000	-0.001343	-0.000183
-0.000061	-0.000854	-0.001465	-0.001038	-0.001221	0.000366	-0.000610	-0.000671
0.000366	-0.000732	-0.001160	0.000122	-0.001343	-0.001282	-0.000610	-0.000427

-0.000244	-0.001099	0.000977	-0.000793	-0.000427	-0.001160	-0.000854	0.000061
-0.000610	-0.001465	0.001709	-0.000793	-0.000671	-0.001160	-0.000793	0.001038
-0.000916	-0.001282	-0.000793	-0.001160	-0.001587	0.000000	-0.000977	0.001648
-0.000732	-0.000183	-0.001953	0.000793	0.001831	-0.000793	-0.001648	0.000305
-0.001221	-0.000122	0.000122	-0.000427	-0.000610	-0.000366	-0.002075	0.000854
-0.000610	-0.000977	0.000732	0.000549	-0.000427	-0.000061	-0.000244	0.000793
-0.000610	0.000366	0.001099	0.000061	-0.000732	0.000183	-0.000916	0.000244
0.000061	-0.000244	-0.000244	0.000854	-0.000183	0.001892	-0.000549	0.001465
-0.000854	-0.000610	-0.001038	0.000549	-0.001160	-0.000732	-0.001282	0.000366
0.000854	0.000000	-0.001404	0.000488	-0.000671	-0.000366	-0.001526	-0.000122
0.001343	-0.000244	-0.001648	-0.000244	0.000061	-0.000183	-0.002625	0.000305
0.000427	-0.000488	-0.001709	-0.000610	-0.000610	0.000366	-0.001770	-0.000244
-0.000732	-0.000427	0.001343	-0.000366	-0.000977	0.000244	0.001160	-0.000671
-0.001343	-0.000183	0.001953	-0.002136	-0.000793	0.000000	0.000305	0.000916
-0.000244	0.000366	0.000000	0.000061	-0.001343	-0.001343	-0.001404	-0.000244
-0.000610	-0.000122	-0.000671	0.000244	0.000427	-0.000122	-0.001099	0.000061
0.000916	0.000061	0.000000	0.000244	-0.000671	0.000061	-0.000671	-0.000183
0.000305	-0.000061	0.000305	-0.001038	-0.001221	-0.000427	-0.001587	-0.000061
-0.000488	0.000000	-0.000244	-0.000610	-0.000061	-0.001526	-0.001709	-0.000244
-0.000732	-0.000488	-0.001160	-0.000061	-0.000793	-0.000916	-0.000366	-0.000305
-0.001038	-0.001465	-0.000549	0.000183	-0.000549	-0.001343	0.001404	-0.000732
-0.001099	-0.000610	-0.001038	0.000549	-0.000366	-0.001038	-0.002075	0.000122
0.000488	0.000183	-0.001709	-0.000183	0.000061	0.000427	-0.001221	-0.000122
-0.000366	-0.000977	-0.001099	0.000671	0.000183	0.002136	0.000000	0.000977
-0.000061	0.000122	-0.000671	-0.000549	-0.000854	0.001770	0.000610	0.000793
-0.001404	0.000732	0.001160	-0.001648	-0.001648	0.002563	-0.000549	0.000122
-0.000854	0.000732	-0.000183	-0.000305	-0.000183	0.001038	-0.001465	-0.000488
-0.000366	-0.000427	-0.001587	-0.000732	0.000488	0.000244	0.000977	0.000916
0.000122	-0.000732	-0.001404	0.000305	-0.000427	-0.000366	0.000305	0.000732
-0.000061	0.000793	-0.000916	0.000366	0.000366	-0.000244	-0.002197	0.000000
0.000610	0.000183	-0.000488	0.000671	-0.000916	-0.000122	-0.002075	0.000366
-0.000793	-0.000305	0.000488	0.002502	0.000122	0.001099	0.001404	0.000000
0.000000	-0.000610	-0.000671	-0.000061	-0.001099	0.000244	-0.002258	0.001038
-0.000183	-0.000122	-0.001343	-0.000061	0.000427	0.000000	-0.002014	-0.000916
-0.001160	0.000488	-0.000793	-0.000122	0.000244	0.000061	0.001160	-0.000916
0.000000	0.000732	-0.000610	-0.000305	-0.001282	-0.000061	0.000244	-0.002197
0.001404	-0.000610	-0.000488	0.000305	-0.000427	-0.000793	-0.001221	0.000244
0.000183	0.000366	-0.000122	-0.001831	-0.000366	-0.001404	-0.002869	0.000549
-0.001648	0.000305	-0.000671	-0.000366	0.000549	-0.002075	0.000671	-0.000061
-0.001831	-0.000427	0.000549	-0.000854	-0.000732	-0.001099	-0.001770	0.000305
-0.000916	-0.000977	-0.000427	-0.001221	0.000732	-0.000671	-0.001831	0.000183
-0.000183	-0.000793	-0.001953	-0.000244	0.000549	-0.000244	-0.001587	0.001526
-0.000793	0.000366	-0.001526	-0.002502	-0.001343	-0.000305	0.001038	-0.000122
0.000000	0.000305	0.000061	-0.000366	-0.001526	0.000244	0.002258	0.000732
-0.000916	0.000549	-0.000366	-0.001221	-0.000366	0.000671	-0.000793	0.001160
-0.001038	0.000183	-0.001953	-0.000854	0.000977	0.001160	-0.000061	-0.000977
0.000183	-0.000671	-0.001526	-0.000244	-0.000061	0.000488	-0.000244	-0.000183
-0.000549	0.000244	0.000366	0.001587	-0.001892	0.000916	-0.000916	-0.000305
0.001221	-0.000183	0.001587	0.001953	0.000000	0.001160	-0.002197	0.000244
-0.000305	0.000061	-0.001648	0.001709	0.000671	0.000732	-0.000427	0.000000
-0.001160	-0.001038	0.000061	0.001770	-0.000793	-0.000549	-0.000488	0.000122
-0.000610	0.000305	0.001160	0.001282	-0.001282	0.001404	-0.001648	0.000000
0.001526	0.000244	-0.000977	-0.000427	0.000793	0.001038	-0.000793	-0.001343
0.000061	0.000183	-0.001282	-0.001282	-0.000122	0.000061	-0.000305	-0.000671
-0.000305	0.000427	0.001282	0.000244	-0.001038	-0.000549	0.000793	-0.000977
-0.000061	-0.001099	-0.000305	-0.001953	-0.000977	0.000366	-0.001099	0.000366
-0.000793	-0.000366	-0.001526	-0.001526	0.000122	-0.001160	-0.000793	0.000793
-0.001282	-0.000183	-0.001099	-0.000488	0.000305	-0.001526	0.000244	0.000732
-0.000977	-0.000305	-0.000549	0.000000	-0.000732	-0.001343	-0.000610	0.001160
-0.000244	-0.001160	-0.001404	-0.000732	-0.000793	0.000122	-0.000610	0.002625
0.000305	-0.000122	-0.001221	-0.001404	-0.000977	-0.000122	-0.000793	0.000854

0.000366	-0.000061	-0.000244	0.000122	-0.000366	-0.000488	0.000122	0.000671
-0.000610	0.000244	0.000122	-0.001038	-0.000061	-0.001099	-0.001831	-0.000244
0.000000	0.000305	-0.000183	0.000000	-0.000366	0.000305	-0.002441	0.000061
-0.000977	0.000244	0.000427	0.000427	-0.000061	0.001221	-0.001160	0.000183
-0.000122	-0.000366	0.000183	-0.000122	0.001770	0.000610	-0.001831	-0.000610
-0.000793	0.000549	-0.001404	0.001038	-0.000793	-0.000610	-0.000610	0.000000
0.000427	0.000977	-0.001099	0.001282	-0.000427	0.001282	0.000183	0.000916
-0.000488	-0.000488	-0.000427	-0.000061	0.000916	-0.000305	0.000366	0.000732
-0.002014	-0.000549	0.000244	0.000610	0.000183	-0.000305	-0.000305	-0.000427
-0.001160	0.000061	-0.000977	0.000427	-0.000732	-0.000061	-0.001648	0.000061
0.000488	0.000366	-0.001465	-0.000305	-0.000671	0.000305	-0.001465	-0.000549
0.000244	0.000854	-0.000610	-0.001038	-0.000122	-0.000427	-0.001038	-0.000122
-0.000366	-0.000183	0.000732	0.000427	-0.001038	0.000549	-0.001343	0.000671
-0.001038	-0.000671	-0.001038	0.000061	-0.001282	-0.000244	-0.001038	-0.000732
-0.000916	-0.001160	-0.000854	-0.000977	-0.001221	-0.000122	-0.000244	-0.001160
-0.001831	-0.000610	-0.000549	-0.000061	-0.000793	0.000000	0.001160	0.000793
-0.001160	-0.000488	0.001709	-0.000244	0.001465	0.000427	-0.000305	-0.001099
-0.000122	-0.000610	-0.001343	-0.000671	-0.000305	0.000061	-0.001526	0.001160
0.000244	0.000000	-0.000183	-0.001587	-0.000549	-0.000977	0.000732	0.000488
-0.000061	-0.000305	0.000977	-0.001526	-0.000488	0.000122	-0.000244	0.000000
-0.000061	-0.000122	-0.000732	-0.002197	0.000732	-0.000610	-0.001770	-0.000854
-0.000977	-0.000061	-0.001709	-0.001587	-0.000671	-0.000366	-0.001587	-0.000427
-0.001770	0.000610	-0.001038	-0.002197	-0.000732	-0.000488	0.000305	-0.013977
-0.000549	0.001465	0.000000	0.000244	0.000061	0.000183	-0.001709	0.000427
-0.000122	0.001160	-0.000427	0.000122	-0.001099	0.000000	-0.002441	-0.000305
-0.000793	0.000366	-0.000977	-0.000061	-0.000183	0.000244	-0.000183	0.000916
-0.000183	-0.000122	-0.001038	0.001282	-0.000366	0.000244	0.000732	0.000610
-0.001038	0.000427	-0.001892	-0.000305	0.000061	0.000000	-0.001221	0.000061
-0.000732	0.000671	-0.000305	0.000610	-0.000122	0.000244	-0.002380	0.000427
-0.001038	-0.000916	-0.000427	-0.000366	0.000610	-0.000916	0.000122	0.000488
0.000122	0.000061	-0.000793	0.000671	-0.001221	-0.000793	-0.000244	0.001526
-0.000183	0.000366	0.000122	-0.000732	-0.001648	-0.001221	-0.000488	0.000793
-0.000427	-0.000916	0.000061	0.000732	-0.000488	-0.000671	-0.001343	-0.000183
-0.001404	-0.000366	-0.000366	0.001465	0.000732	-0.000488	-0.000183	-0.000366
-0.000488	0.000488	-0.000549	0.000793	0.000061	0.001648	-0.000977	-0.001282
0.000061	0.000549	-0.000854	-0.000122	0.000122	0.000977	-0.001099	-0.001221
-0.000488	0.000732	-0.000549	0.000000	-0.000427	0.001526	-0.000061	-0.000854
-0.000977	0.000183	0.000183	-0.000183	-0.000488	0.000366	0.000305	0.000122
-0.000732	0.000366	-0.000793	-0.001343	-0.000366	0.000366	-0.000549	0.000427
0.000488	-0.000305	-0.001770	-0.001099	-0.000305	-0.000305	-0.001282	0.000732
0.000427	-0.000305	-0.000916	-0.001343	-0.000122	0.000488	-0.000610	-0.000427
0.000732	-0.001221	0.000671	-0.000916	-0.000549	-0.001587	0.000061	0.001709
-0.000183	-0.000427	-0.000183	-0.000793	-0.001587	-0.000366	-0.000610	0.000427
-0.000977	-0.000183	-0.001099	-0.000732	-0.000488	-0.000366	-0.001343	0.000732
-0.001404	-0.001099	0.000183	-0.000671	-0.000549	0.000183	0.000305	-0.000366
-0.001038	-0.000732	-0.000122	0.000427	0.000122	-0.000549	0.000183	0.000244
-0.000488	0.000488	-0.001526	0.000427	0.000549	-0.000244	-0.002136	-0.000671
-0.001038	-0.000244	-0.000366	0.000244	-0.000122	0.001099	-0.000732	0.000244
-0.000305	-0.000122	-0.000061	0.000244	-0.000122	0.000061	0.000916	0.000000
0.000244	-0.000549	-0.001282	0.001282	0.000000	0.000244	0.000183	-0.000061
-0.000427	0.000488	-0.000610	0.001343	-0.000366	0.000671	-0.001587	0.001343
0.000061	0.000366	0.000000	0.000793	-0.000122	0.000549	-0.001099	0.000305
-0.001404	0.000183	-0.000488	0.000610	-0.000122	-0.000305	-0.001587	0.000122
0.000183	0.001221	-0.001648	-0.001282	0.000000	-0.000671	-0.002197	-0.000916
-0.000549	0.000488	0.000244	-0.000488	-0.000427	-0.000916	-0.000305	-0.000427
-0.000244	0.000916	0.000122	-0.000061	-0.000854	0.001282	-0.000732	0.000000
-0.001160	0.000305	0.000061	-0.000183	-0.001038	-0.000427	-0.000854	-0.001099
-0.000610	-0.000366	-0.000427	-0.001038	-0.000305	-0.000061	-0.000610	0.000305
-0.000183	-0.001343	0.001038	-0.002075	0.000305	-0.000061	0.001282	-0.000671
-0.000916	-0.000061	-0.000427	-0.000366	-0.000305	0.000610	-0.000366	-0.000732
-0.000732	-0.000366	-0.000916	-0.001221	-0.000122	-0.000610	-0.001160	0.000549

-0.001160	-0.001404	-0.000244	-0.001465	-0.000732	0.000061	-0.000671	0.001465
0.000366	-0.001587	0.000671	0.000916	-0.000366	-0.001587	-0.000549	0.000977
-0.001343	-0.000488	-0.000977	0.000061	-0.000732	-0.000732	-0.000610	0.000854
-0.000977	-0.000549	-0.001587	-0.000305	0.001648	-0.000427	-0.000549	0.000427
-0.000549	-0.000061	-0.000671	-0.000122	-0.001770	0.000366	-0.001099	-0.000427
0.000977	0.000183	-0.000549	0.000366	-0.001282	-0.000183	-0.000122	-0.000061
0.000122	-0.000244	-0.000488	0.001526	-0.000549	0.001038	-0.000977	-0.000244
0.000610	-0.001526	-0.000854	-0.000183	-0.001038	-0.000427	-0.000610	0.000244
-0.000244	-0.001892	0.001831	-0.000793	0.000000	0.000244	-0.000305	0.000244
-0.000732	-0.000549	0.000671	-0.000061	-0.000427	0.001404	-0.001343	0.000122
-0.001465	0.000732	-0.001038	0.000671	-0.000854	0.000854	-0.000916	-0.001099
-0.001648	0.000916	-0.000977	-0.001709	0.000183	0.000671	-0.000916	-0.000549
-0.001648	0.001038	0.000183	-0.000366	0.001099	-0.000305	-0.000793	0.000793
-0.000610	0.001892	0.001404	0.000000	-0.001099	0.001526	-0.001953	-0.000610
0.000488	0.000305	-0.001587	-0.000305	-0.001038	-0.000732	-0.001221	0.000549
-0.000488	-0.000061	-0.001038	-0.000183	0.000244	-0.001099	0.000427	-0.000793
-0.000916	0.000122	-0.001282	0.000244	0.000122	-0.001526	-0.001709	0.001099
0.001160	0.000793	-0.000854	-0.000061	0.000244	-0.000061	-0.001831	0.000793
0.000977	0.000488	-0.001648	0.001282	-0.000793	-0.000244	-0.001526	-0.000183
-0.001404	-0.000366	0.001465	-0.001343	-0.000244	-0.000549	0.000488	-0.000427
-0.001099	-0.000305	-0.000305	-0.000366	0.000183	0.000244	-0.002136	0.000366
0.000793	0.000000	-0.000916	-0.001587	-0.000427	-0.000671	-0.001953	-0.000488
0.000000	-0.001404	-0.001648	-0.000244	0.000732	0.000000	-0.001343	-0.000610
-0.000610	-0.000366	0.000122	-0.000793	0.000671	0.001648	0.000000	-0.000793
0.000244	-0.000122	0.000122	-0.002747	-0.000793	0.000061	-0.002014	-0.000488
0.000488	-0.000305	-0.001221	0.000427	-0.000427	-0.000122	-0.000244	0.000183
-0.000854	-0.000549	-0.000183	0.001160	-0.000305	-0.000366	0.000488	0.000122
-0.000854	-0.000916	-0.000427	0.000732	-0.000122	0.000183	-0.001099	-0.000366
-0.001099	-0.000916	0.000183	-0.000061	0.000427	-0.000732	-0.002075	0.001038
-0.000244	0.000549	-0.001343	0.001404	-0.000671	0.000244	-0.002380	0.000732
0.000305	0.001343	-0.001221	0.001343	-0.000122	0.001282	-0.000610	0.000183
0.001587	-0.000183	0.000793	0.000854	-0.000427	0.001282	0.001282	-0.000061
-0.000793	0.001160	-0.001160	0.000305	0.000427	-0.000610	0.000244	0.000183
-0.000916	0.000305	-0.000977	0.001099	-0.000732	0.001038	0.000305	0.000305
0.000671	0.000427	-0.001160	0.000000	0.000244	-0.000732	0.000549	0.000793
-0.000549	0.000000	0.000122	-0.000671	-0.000183	0.000244	-0.001343	0.000427
-0.000183	-0.001770	-0.001526	-0.001831	-0.000488	-0.000549	-0.002808	0.000610
-0.000732	-0.000732	0.000000	0.000061	-0.000427	0.000183	-0.001709	-0.000549
0.000183	-0.000977	0.000488	-0.000305	-0.000427	-0.000122	-0.000732	0.000000
-0.000916	-0.000427	0.000183	-0.000549	-0.000671	-0.000671	-0.000671	-0.001221
-0.000305	0.000549	-0.001099	-0.001404	0.000000	-0.000732	-0.001343	-0.000427
-0.000366	0.000000	-0.001160	-0.000488	0.000122	-0.000671	-0.001038	-0.001831
-0.000488	-0.000610	0.000366	-0.000366	0.000427	-0.000732	0.000122	-0.000488
-0.000427	-0.000916	0.000000	0.000061	-0.000854	-0.000488	-0.000488	-0.001343
-0.000610	-0.000305	-0.001648	0.000427	0.000122	-0.000305	-0.000793	0.000977
-0.001526	-0.000549	-0.001160	-0.000122	-0.000122	-0.000671	-0.000427	0.001526
-0.000916	-0.000488	0.000244	0.000427	-0.000366	-0.000671	-0.001099	0.001465
0.000671	-0.000732	0.000977	-0.000610	-0.000671	-0.001465	-0.001282	0.001404
0.000000	-0.001099	-0.002014	-0.000305	-0.000732	-0.000427	-0.001221	0.000061
-0.000610	0.000122	0.000732	-0.000732	-0.001282	0.001099	-0.002441	0.000183
-0.000061	0.000244	0.000671	-0.000183	0.000488	0.001465	-0.001465	0.000305
-0.000732	-0.000671	0.000427	-0.000488	0.000305	0.000732	-0.000183	0.000427
-0.001038	0.000305	-0.000488	-0.000610	-0.000732	-0.000183	-0.000977	0.000183
0.000000	0.001099	-0.001526	0.001160	0.000000	0.001160	0.001099	0.000854
0.000244	-0.015503	0.000732	0.000488	0.000366	-0.000366	0.000427	0.000061
0.001343	-0.001282	-0.000977	0.000366	-0.000610	-0.000488	0.000061	-0.000061
-0.000427	-0.001770	-0.000916	-0.000549	-0.000366	-0.001160	0.000061	0.000610
-0.001892	-0.001099	-0.000183	-0.000488	0.000610	-0.000732	-0.001465	-0.000671
-0.001953	-0.000732	-0.000549	-0.001709	-0.000305	-0.000122	-0.001953	0.001587
-0.000671	0.000000	-0.001343	-0.000366	-0.000488	-0.000977	0.000000	-0.001038
0.000244	0.000305	0.000000	-0.000305	0.000183	-0.000854	-0.000122	-0.000549

-0.000183	0.000549	0.001099	-0.000488	-0.000610	-0.000610	-0.001343	0.000061
-0.000488	-0.000977	0.001648	-0.001099	-0.001343	-0.000244	-0.000366	0.000305
0.000610	-0.000305	0.001404	-0.001160	-0.000427	0.001038	-0.000488	-0.000366
-0.000061	0.001038	-0.000671	0.001099	0.000732	-0.000244	0.000549	-0.000122
-0.000916	-0.000366	-0.000183	0.000244	0.001282	0.000244	-0.002197	0.000183
-0.001343	-0.000244	0.000427	-0.000610	-0.001343	-0.000488	-0.000549	-0.000854
-0.000244	-0.000610	-0.000488	-0.000183	-0.000977	0.000549	0.000427	0.001099
0.000732	0.000183	-0.000366	0.000916	-0.000549	0.000366	-0.000427	-0.000366
0.000610	-0.001160	-0.000366	0.000061	0.000000	0.001282	-0.000793	0.000061
0.000000	-0.001282	0.000183	-0.000061	0.000549	0.001526	-0.000977	-0.000244
-0.000732	-0.000916	-0.001099	-0.000854	-0.000610	-0.000610	-0.001526	0.000305
0.000610	0.001038	-0.000549	-0.000549	-0.000732	-0.000916	-0.002075	-0.000854
0.000305	0.000061	0.000549	-0.000305	-0.000305	-0.000732	0.000488	0.000183
-0.000916	-0.001648	-0.001038	-0.000854	0.000305	-0.000549	0.000427	-0.000183
-0.001221	-0.000916	-0.000732	-0.001160	-0.000183	-0.001648	-0.000854	0.001892
-0.001038	-0.000366	-0.000427	0.001160	-0.000916	-0.001587	-0.001099	0.000061
0.000671	-0.001099	-0.000061	-0.000977	0.001099	0.000183	-0.000732	0.000793
0.000610	-0.000122	-0.000122	-0.000916	-0.000549	0.000061	0.000000	0.000183
-0.000122	0.000732	-0.000610	-0.000793	0.000854	-0.000183	-0.001404	-0.000244
-0.000244	0.001709	-0.000122	-0.000610	-0.000305	0.000366	-0.000977	-0.000183
0.000000	0.001587	-0.000732	0.000732	-0.000488	0.000061	-0.000244	-0.000305
-0.000244	0.000061	-0.000916	-0.000488	-0.001099	0.000183	0.000793	-0.000488
-0.000732	0.000671	-0.000488	-0.000305	-0.000916	0.000122	-0.002075	-0.000732
0.001282	-0.000488	-0.000488	-0.000366	0.000244	-0.000183	0.000000	-0.000916
0.001343	-0.001221	-0.000244	-0.001160	-0.000122	-0.000610	-0.002747	0.000244
-0.000488	0.000000	-0.000244	-0.000610	-0.001343	-0.001526	-0.000183	0.001282
-0.000916	-0.000793	0.000427	-0.000610	-0.000732	-0.000244	-0.000610	0.000366
0.000061	0.000549	-0.000854	-0.000244	0.000488	0.000000	-0.000732	0.000061
0.000122	-0.002136	-0.001343	-0.000488	0.000305	-0.000732	-0.002136	-0.000732
-0.001282	-0.000427	-0.001343	-0.000610	0.000183	-0.000671	0.002441	-0.000610
-0.000488	0.000671	-0.000305	0.000488	-0.000854	0.001465	-0.002502	0.000732
0.000977	-0.000488	-0.000610	0.000122	-0.000366	0.000000	0.002625	-0.000366
0.000610	-0.000549	0.000183	0.000671	-0.000916	-0.000244	-0.002930	0.000977
-0.001099	-0.001648	-0.000671	-0.000183	-0.000488	0.000671	-0.002563	0.000305
-0.000427	0.000122	-0.000549	-0.000732	-0.000183	-0.000488	-0.001282	0.000366
0.002136	-0.000183	-0.000854	-0.001099	0.000244	-0.000610	0.000000	-0.000488
0.001465	-0.000244	-0.000305	-0.001221	-0.001892	-0.000610	-0.002808	0.000244
0.002380	-0.000549	-0.000183	-0.001709	-0.000488	-0.000671	0.001587	-0.000183
-0.001160	-0.001587	0.000122	-0.001038	0.000183	-0.001160	-0.001160	0.000122
-0.000427	-0.001587	-0.000732	-0.000305	0.000122	-0.014771	-0.002502	0.000610
-0.001709	-0.000977	-0.000671	-0.000366	-0.000488	-0.000610	-0.000610	-0.000061
-0.000610	-0.000427	-0.000305	-0.000549	0.000549	-0.000549	-0.000977	-0.000854
-0.000549	-0.000122	0.000732	0.001221	0.002014	-0.000061	-0.000793	0.000488
0.000122	0.000793	-0.000793	0.000671	-0.000122	-0.000427	0.000000	-0.000244
0.000977	-0.000244	-0.000549	-0.000549	-0.001038	-0.001587	0.000427	0.000305
-0.000427	0.000000	0.000000	0.000427	-0.000488	-0.000366	-0.000854	0.000305
-0.000122	-0.000305	-0.000916	0.000427	0.000183	-0.001038	0.000305	0.000000
-0.000488	-0.000549	-0.001038	-0.000732	-0.000061	0.000122	-0.000549	-0.000854
-0.000671	-0.001587	-0.001892	0.000610	-0.000488	-0.000916	-0.001160	-0.001465
-0.000488	-0.000732	-0.000366	0.001770	0.000122	0.000427	-0.002502	-0.000916
0.001099	-0.000610	0.000061	0.000854	0.000427	0.000916	0.000977	-0.001282
-0.001404	-0.000610	-0.000366	-0.000610	-0.000305	0.001160	0.000122	-0.000854
-0.000916	0.000183	-0.000366	-0.001099	-0.000244	-0.000122	-0.002197	-0.000183
0.000854	0.000061	-0.000854	-0.000244	0.000061	0.000122	-0.002380	0.000305
0.001038	0.000732	-0.000732	-0.002319	-0.000366	-0.000183	-0.000183	0.000488
-0.000732	0.000061	-0.000916	-0.000183	-0.001221	-0.000183	-0.001099	-0.014587
0.000549	-0.000671	-0.000610	-0.000122	-0.001038	-0.001526	-0.001221	0.000183
-0.001099	-0.000488	-0.000244	-0.000305	0.000183	0.000427	0.000305	-0.000916
-0.000916	-0.001648	-0.001038	-0.000610	-0.000305	0.000916	-0.001221	0.000305
-0.002563	-0.000122	-0.001099	0.000183	0.000854	0.000183	-0.001404	-0.000061
-0.000488	0.000916	-0.000977	-0.002441	-0.000244	0.000671	-0.001526	0.000916

0.000977	-0.001099	-0.000793	-0.000305	0.000977	-0.000977	0.000977	-0.000671
-0.000671	-0.000549	-0.000610	-0.000671	-0.001099	-0.015564	-0.000610	-0.001038
-0.000427	0.000061	-0.001709	0.000183	-0.000793	-0.001221	-0.000549	0.000610
0.000732	-0.001343	-0.000488	0.000122	0.000671	-0.001953	-0.000793	0.000793
0.000488	-0.000366	-0.000061	0.000488	-0.000183	-0.000671	-0.001343	0.001038
-0.000916	-0.000244	0.000793	0.001160	-0.000977	0.000244	-0.002075	0.000488
-0.000488	-0.001221	-0.000061	-0.000488	-0.000488	-0.000305	-0.000183	0.000122
0.001404	0.000000	0.000732	-0.000366	-0.000793	0.000061	-0.000732	-0.000610
0.000854	0.000061	-0.000183	-0.000549	-0.000732	-0.000122	-0.001770	-0.000488
-0.000977	-0.000244	-0.001099	-0.000854	-0.000671	0.000854	-0.001160	-0.000977
-0.001221	-0.000854	-0.001648	-0.001343	0.000000	-0.000488	-0.000732	0.000122
-0.000244	-0.000732	-0.001709	0.000244	0.000610	-0.000916	-0.000977	-0.000732
0.000977	0.001343	-0.000183	-0.000610	-0.000061	-0.000916	-0.000793	0.000061
-0.000183	0.000183	0.000244	-0.001343	-0.000610	-0.000488	-0.001038	0.000000
-0.000244	0.000305	0.000610	0.000183	0.000000	-0.000793	-0.000610	-0.000183
-0.001221	0.000183	-0.000122	-0.000732	0.000671	0.000000	-0.000671	-0.000183
-0.000977	0.001160	0.000000	-0.000610	-0.000671	0.000488	-0.001343	-0.000610
-0.001343	0.000610	0.000732	-0.001404	-0.000854	0.000427	-0.001526	0.015503
0.000671	-0.001709	0.000305	-0.001587	-0.001465	-0.000549	-0.000244	0.000549
0.000366	0.000122	-0.000244	-0.001709	0.001038	0.000305	-0.000793	0.001343
-0.001587	-0.000183	-0.001648	-0.000122	0.000061	-0.000732	-0.000122	-0.000610
-0.000732	-0.000671	-0.000244	-0.000793	-0.001038	-0.000183	-0.000244	-0.000854
0.000549	-0.000061	0.000427	-0.001587	-0.000793	-0.001831	-0.000732	-0.000122
-0.000427	-0.000244	-0.001587	0.000488	0.001343	-0.001404	-0.001587	-0.001526
-0.000183	0.000183	-0.001099	0.000488	0.000793	-0.015747	-0.000549	-0.000977
-0.000305	-0.000366	-0.000366	-0.000366	-0.000854	-0.001221	-0.000488	-0.000305
0.000061	-0.000671	0.000183	-0.001465	0.000000	-0.001526	-0.001465	-0.000610
0.000549	-0.000610	0.000427	-0.001038	0.001160	-0.000916	-0.001526	0.000671
-0.000549	0.000000	0.000244	-0.002075	0.000000	-0.001099	-0.001282	0.001526
-0.001770	-0.000549	-0.000061	-0.001343	0.000000	0.000427	-0.001099	0.000366
0.001160	0.001282	-0.000061	-0.001160	0.000366	-0.000732	-0.001831	0.001038
0.000610	0.000793	-0.001099	0.000244	0.000000	-0.000122	-0.000854	0.001648
-0.002258	0.001099	-0.000366	0.000732	-0.001221	-0.000061	-0.000122	0.000793
-0.001831	-0.000183	-0.000977	-0.000244	-0.000061	-0.000610	-0.000793	0.000427
-0.000610	0.000732	-0.000305	-0.000122	0.000610	-0.000122	-0.002014	0.000305
0.000183	0.001343	-0.001404	0.000000	0.001038	-0.000610	-0.000549	-0.000061
0.000854	0.000427	-0.000366	-0.000671	0.000427	-0.000854	-0.000854	-0.000427
0.000549	-0.000305	0.000000	-0.001099	-0.000854	-0.000793	-0.001038	0.000305
0.001404	0.000732	0.000488	-0.000488	-0.000305	-0.000793	-0.001038	0.000183
0.000488	-0.000488	0.000488	-0.001282	0.000183	-0.000366	-0.000793	0.000244
-0.001099	-0.001099	-0.000916	-0.000610	-0.000183	-0.000793	-0.000427	0.000549
-0.001526	-0.001892	-0.000977	-0.001160	-0.000183	0.000061	-0.000916	0.000000
-0.000977	-0.000793	0.000671	-0.000793	0.000671	-0.000549	-0.001953	-0.000244
0.001526	-0.000549	-0.000305	0.000854	0.001038	-0.000610	-0.001160	-0.000427
-0.000183	-0.000305	0.000122	-0.000183	-0.000183	-0.000977	0.000549	-0.000183
-0.000977	-0.000061	0.000000	-0.001648	-0.000732	0.000366	-0.000488	0.001770
-0.001160	-0.000366	-0.000061	-0.015808	0.000854	-0.001343	-0.002014	-0.000183
-0.001038	-0.001160	-0.001221	0.000000	-0.000183	-0.000061	-0.001099	0.000122
-0.001343	-0.000427	-0.000061	-0.000671	-0.000305	-0.000793	-0.000183	0.000793
-0.000977	0.000000	-0.000122	-0.000305	-0.000549	-0.000305	-0.001648	0.000366
-0.000427	-0.000916	0.000427	0.001099	-0.000549	-0.000854	-0.001526	0.000122
-0.000549	-0.000671	0.000366	0.000061	-0.001892	-0.000549	-0.001099	-0.000488
0.000549	-0.000610	-0.000854	-0.000366	-0.000488	-0.000305	-0.001831	0.000244
-0.001099	-0.000305	-0.001465	-0.000977	0.000427	0.000183	-0.001343	0.000183
-0.000916	-0.001404	-0.001282	-0.000305	0.000854	0.000854	-0.000122	-0.000916
-0.000183	0.000305	-0.000366	-0.001160	-0.001221	-0.000244	-0.000549	0.000122
0.000793	0.000488	0.000793	-0.001465	-0.000183	-0.000549	-0.000183	-0.000916
0.000366	-0.000305	0.001099	-0.001587	-0.000183	-0.000977	-0.002075	0.000793
-0.000916	-0.000732	-0.000793	-0.001648	0.000488	-0.001099	-0.000488	0.000183
-0.000610	-0.000122	-0.001099	-0.001160	-0.000244	-0.001038	-0.000549	0.000732
-0.000549	0.000061	0.000000	-0.002014	-0.000305	-0.000671	-0.002441	0.000488



-0.000916	-0.000061	-0.000183	-0.001282	0.000671	-0.000793	-0.001343	0.000854
-0.000427	0.000000	-0.000061	-0.001465	-0.000854	-0.000061	-0.000610	-0.000488
0.000122	0.000427	-0.000977	0.000305	-0.001221	0.000793	-0.001038	-0.001160
-0.000549	-0.000732	0.000366	-0.000610	0.001465	-0.001282	-0.001282	0.000122
-0.000793	0.002014	-0.000244	-0.000793	0.000671	-0.001526	-0.000366	0.000305
-0.000854	0.001160	-0.000488	0.000122	-0.001221	-0.000671	-0.000610	0.000366
-0.002136	0.001343	-0.000671	0.000061	-0.000366	-0.000061	0.000061	-0.000183
-0.001038	0.001587	0.000061	0.001221	0.000305	-0.001465	0.000488	-0.000549
0.001465	-0.000610	0.000977	0.014404	0.000244	-0.000916	-0.000244	0.000916
-0.000671	-0.000122	-0.001587	0.000916	-0.001282	0.000427	0.000122	-0.000366
-0.000854	-0.000244	-0.000183	0.000732	0.001587	-0.000732	-0.001953	-0.000244
-0.000366	0.000122	0.000671	0.000305	0.000366	0.000366	-0.001953	-0.001770
0.001221	-0.000977	0.001343	-0.000671	-0.000122	0.000671	-0.002258	-0.000488
-0.000549	-0.000793	-0.000671	-0.001587	-0.001099	-0.000122	-0.000671	0.000977
-0.002014	-0.002014	-0.000183	-0.002197	-0.000427	0.000732	-0.001221	0.000488
-0.000427	-0.001465	0.000305	-0.001831	-0.000305	-0.001526	-0.001709	0.000977
0.000305	-0.001709	0.000366	-0.002136	-0.000122	-0.001526	-0.000610	0.002014
-0.000488	-0.001526	-0.000916	-0.000183	-0.000305	-0.000732	-0.001221	0.000427
-0.000427	-0.000977	-0.002075	-0.001282	-0.001160	-0.001587	-0.000977	0.000854
0.001160	0.000305	-0.000183	-0.001831	0.000061	-0.000549	-0.001282	0.001404
0.000061	0.000732	0.000549	-0.000366	0.000366	-0.001465	0.000549	-0.000549
0.000427	0.001709	-0.000183	0.000000	-0.000732	0.000488	-0.000305	0.000122
-0.000488	0.000977	-0.000732	-0.000610	0.000061	-0.000732	-0.001709	-0.000061
0.000610	0.000061	0.000183	-0.000183	-0.000427	-0.001526	-0.001526	0.000916
0.000732	0.000732	-0.001160	-0.000671	-0.000977	-0.000671	-0.001953	0.000549
-0.000244	0.000732	0.000061	0.001343	-0.000732	-0.000244	-0.001648	0.000427
-0.000977	0.000122	-0.000427	0.001770	-0.000732	-0.000549	-0.000854	0.000977
-0.000793	-0.000061	-0.000183	0.000977	-0.000427	-0.000061	-0.000732	0.000061
-0.000610	0.000977	-0.000366	0.000244	-0.000671	0.000061	-0.001587	-0.000305
-0.000183	0.000366	-0.000793	0.000671	0.000732	0.000000	-0.000671	-0.000671
0.000610	-0.000061	-0.000732	0.000549	0.001099	0.000549	-0.000122	-0.000183
0.000427	-0.001770	0.000610	-0.000916	0.000671	-0.000977	-0.000977	-0.000183
0.001221	-0.000610	-0.000366	-0.000977	-0.001465	-0.000366	-0.001221	0.000183
-0.001465	-0.001160	-0.000549	-0.000793	0.000122	-0.001343	0.000183	-0.000793
-0.001282	-0.001587	-0.001587	-0.001099	-0.000366	-0.000549	-0.002258	0.000916
-0.000732	-0.001343	-0.000305	-0.001648	0.000000	-0.001404	-0.001465	0.000488
-0.000427	-0.000427	0.000061	-0.000854	0.000000	-0.000549	0.000061	-0.000977
-0.000427	-0.000122	-0.000061	-0.001709	0.000000	-0.000977	-0.000732	-0.000488
-0.000122	-0.000977	-0.000061	-0.000488	-0.000671	-0.000488	-0.001953	0.000488
0.000244	0.000488	-0.000916	-0.001526	-0.001099	0.000366	-0.000916	0.000671
-0.000610	0.000732	0.000061	-0.001953	0.001160	-0.000488	-0.000854	0.000916
-0.000305	0.000183	-0.000061	-0.000305	-0.000793	-0.000366	-0.000427	0.002014
0.000244	0.001343	-0.000122	-0.001038	-0.000244	0.000122	-0.000671	0.001038
-0.000061	0.000061	-0.001709	-0.001038	0.000854	-0.000183	-0.001648	0.000244
-0.001465	-0.001282	-0.000977	-0.000244	0.001587	0.000305	0.000610	0.000366
-0.001587	0.000061	0.000610	-0.000488	0.000427	0.000000	-0.000122	-0.000244
-0.001099	0.000488	-0.000671	-0.000671	0.000854	-0.000427	-0.001343	-0.000793
0.000000	-0.000977	-0.000427	-0.000122	0.000977	-0.000793	-0.002197	0.000305
-0.001221	-0.000366	-0.001648	0.000183	-0.000183	-0.001038	-0.000488	-0.000183
-0.001160	-0.000427	0.000244	-0.001099	0.001709	-0.000793	-0.001099	0.000122
0.000549	0.000061	-0.000305	-0.000244	0.000061	-0.000977	-0.001587	-0.000061
-0.000305	-0.001831	0.000122	-0.000854	-0.000793	-0.001587	0.000366	0.000122
-0.001221	-0.000427	-0.000610	-0.000671	-0.000732	-0.001404	-0.000732	0.000366
-0.000610	-0.001099	-0.000305	-0.000122	-0.000671	-0.000549	-0.000854	-0.001465
-0.000183	-0.000183	-0.000610	-0.000916	-0.000366	-0.001099	-0.000977	-0.000427
0.000977	-0.000488	-0.001404	-0.000793	0.000732	-0.000854	0.000000	-0.000427
-0.000305	0.000671	-0.000427	-0.002136	-0.000305	-0.000610	-0.001099	0.001038
-0.000610	0.000549	0.000488	-0.000488	-0.000244	-0.000854	-0.000366	0.000732
-0.000854	0.001099	0.000366	-0.002014	-0.001221	0.000183	-0.000671	0.000061
-0.001282	0.000366	-0.000732	-0.001770	0.000854	0.000183	-0.001526	0.000000
-0.001282	0.000427	-0.000366	-0.001465	-0.001038	0.000610	-0.002380	-0.000305

-0.000244	-0.000916	0.000244	0.001038	0.000427	-0.000854	-0.001892	-0.000366
-0.000244	0.000305	-0.000854	0.000793	-0.001282	-0.000305	0.000122	0.000671
0.000366	0.000244	-0.000793	0.000000	-0.000610	-0.000366	0.000305	-0.000305
-0.001160	-0.000305	-0.001343	0.000854	-0.000732	0.000793	-0.000427	-0.001160
-0.001404	0.001038	-0.000061	-0.000244	0.000183	-0.000122	-0.002014	0.000000
-0.000916	-0.001404	-0.000793	-0.001648	0.000427	-0.002014	-0.000671	0.001221
0.002014	-0.000671	-0.000671	-0.001160	-0.000671	-0.000977	0.000122	0.000610
0.000366	-0.000427	-0.000977	-0.000610	0.000305	-0.000366	0.000061	-0.001038
0.000183	0.000488	0.001526	-0.002014	0.000244	0.000305	-0.001892	0.000061
-0.000183	-0.000183	-0.000122	-0.000427	-0.000122	-0.001282	-0.001343	0.000000
0.000732	-0.000732	-0.001526	0.000183	0.000061	-0.000916	-0.000854	-0.000427
-0.001709	0.000000	-0.000244	0.001465	-0.000427	0.000366	-0.002075	-0.002075
-0.001038	0.000671	0.000305	0.000244	-0.000061	-0.001221	-0.001221	-0.001709
0.000366	0.000427	-0.000366	-0.001221	-0.000305	-0.002136	-0.000366	-0.000916
0.000610	-0.000122	-0.000305	-0.000732	-0.000610	-0.001465	0.000732	0.000610
-0.000916	0.002075	-0.000427	-0.001343	-0.001343	-0.002014	0.000183	-0.000305
-0.000183	0.001709	-0.000427	-0.001770	0.000549	-0.000671	-0.001831	0.000610
0.000061	-0.000305	-0.001282	-0.002136	0.000488	-0.000732	-0.001953	-0.000061
-0.000671	0.000122	-0.000916	-0.001892	-0.000122	-0.001160	-0.001404	0.001953
-0.000732	0.000244	0.000122	0.000305	-0.000671	0.000366	-0.000244	0.000732
0.000000	-0.001038	-0.000305	0.000122	-0.000366	0.000244	0.000122	0.001099
-0.000183	-0.000427	-0.000793	-0.001831	0.000488	0.000183	-0.001831	0.000977
-0.000488	-0.001221	0.000244	-0.000061	0.000061	-0.000305	0.000916	-0.000366
-0.001221	-0.001587	-0.001465	-0.000854	-0.000183	-0.001038	0.000549	-0.000488
0.000305	-0.000610	-0.001648	-0.000977	-0.001160	-0.000549	-0.001831	0.001465
0.001282	-0.001160	0.000732	-0.000977	0.000305	-0.000916	-0.000183	0.000793
-0.000122	0.000427	0.000549	-0.001892	0.000183	-0.000549	0.000854	-0.000732
-0.001282	0.000610	0.000793	-0.000549	-0.001160	-0.000549	-0.000122	-0.000671
-0.000610	-0.002014	-0.001160	-0.000305	0.000244	-0.001160	-0.001953	-0.001465
0.000793	-0.000061	0.000122	0.000000	0.000427	-0.000488	-0.001526	0.000244
-0.001221	0.002014	-0.000916	0.000366	0.000549	0.000061	-0.000244	-0.001404
0.000061	0.000916	-0.000305	0.000732	-0.000427	0.000427	-0.001282	-0.001587
0.001099	-0.000793	-0.000183	0.000061	-0.000122	-0.000366	-0.001526	-0.000183
0.001648	-0.000122	0.000732	-0.001038	-0.000549	-0.000732	-0.001831	0.000793
-0.000671	-0.013550	-0.000610	0.000183	-0.000488	-0.002136	0.000793	0.000671
-0.000061	0.000549	-0.001465	0.000427	0.000671	-0.001282	-0.000732	0.000610
0.000305	0.000671	-0.001465	-0.000427	0.000916	-0.001160	-0.001038	0.001526
0.000977	-0.000122	0.000610	-0.001770	-0.000305	-0.000366	-0.001282	0.000366
-0.000854	0.002625	0.000000	-0.001221	-0.001465	-0.000671	-0.000488	0.001282
0.000549	0.000671	0.000122	-0.000916	-0.000854	0.000549	-0.000183	0.001282
-0.000244	-0.000427	0.000244	-0.001282	-0.001221	0.000610	-0.000732	0.000000
-0.000732	-0.000732	0.001404	-0.002258	0.000549	0.001404	-0.001587	0.000000
-0.001160	-0.000488	-0.000549	-0.001221	-0.000671	0.000183	-0.002014	-0.000793
0.000366	-0.001892	-0.001343	-0.000732	0.000183	-0.000488	-0.000977	0.000183
0.000977	-0.002014	-0.000427	-0.001709	-0.000488	-0.000366	-0.001343	0.000854
-0.000305	-0.001831	0.000610	-0.000549	-0.000916	-0.000793	-0.001038	-0.001587
-0.000854	-0.001526	-0.002014	0.000061	-0.001038	-0.000549	-0.001831	-0.001160
-0.000366	-0.001343	-0.001587	-0.001282	-0.000793	0.000000	-0.000732	-0.001892
0.000366	-0.001221	0.000977	-0.000122	-0.001099	-0.000366	-0.001831	-0.000671
0.000366	-0.000366	0.000671	-0.001526	-0.000122	0.000000	-0.000916	0.000183
-0.000977	0.000427	-0.000916	0.000122	-0.000977	0.000427	-0.001282	0.014954
-0.000244	0.002319	0.000549	-0.001404	0.000366	-0.000488	0.000488	0.002136
-0.000793	0.001404	0.000183	-0.000427	0.000183	-0.001221	0.000305	0.001892
-0.001526	0.002014	0.000305	-0.000671	0.000244	-0.000793	-0.001038	0.002258
-0.000793	0.001343	-0.001099	-0.000366	0.000244	-0.000366	-0.000854	0.000549
0.000916	0.000732	-0.000916	-0.000671	0.000977	-0.001526	-0.002197	0.000183
0.000305	0.002686	0.001404	-0.001770	-0.000549	-0.000610	-0.001099	-0.001099
-0.001404	0.001648	0.000000	-0.001221	-0.001282	-0.000977	-0.000671	-0.000366
-0.000427	-0.000183	-0.001526	-0.001282	-0.000610	-0.000122	-0.000610	-0.001038
0.000183	0.000549	-0.000549	-0.002258	0.000366	-0.000305	-0.000427	0.000000
-0.000183	0.000488	0.000000	-0.001709	-0.000549	-0.000305	-0.000183	-0.000183

-0.001465	-0.001526	-0.000488	-0.001465	-0.000488	-0.000122	-0.002075	0.000427
-0.000183	-0.000793	-0.001221	-0.000549	-0.000916	0.000061	-0.001038	0.001099
0.001587	-0.001953	0.000366	-0.001160	0.000610	-0.001038	0.000000	0.001282
-0.001221	-0.001160	0.000427	-0.001526	-0.000854	-0.000122	-0.000793	0.000427
-0.001831	-0.001587	-0.001587	-0.000183	0.000427	-0.000122	-0.000732	-0.001099
0.000916	-0.001404	-0.001648	-0.000488	-0.000122	0.000122	-0.001343	0.000610
0.001221	-0.001709	-0.000244	-0.002075	0.001465	-0.000427	-0.002136	0.000671
-0.001038	-0.000305	-0.000305	0.000488	-0.000305	-0.001465	0.000183	-0.001038
-0.000793	-0.001160	0.000183	0.000671	-0.000977	-0.001160	0.000549	-0.002319
0.000366	0.000183	0.000427	-0.000549	0.000305	-0.000610	-0.001221	0.000366
-0.000671	-0.000244	-0.000061	-0.000488	0.000610	-0.000488	-0.001648	0.000671
-0.001160	0.001709	-0.001404	-0.001099	-0.000183	-0.000671	-0.001648	0.000000
0.000305	0.001831	-0.001099	-0.000305	0.000183	0.000793	-0.000793	0.001282
0.001709	0.001526	0.000488	-0.000427	0.000183	0.000671	-0.002197	0.000671
-0.000244	0.001587	0.000000	-0.000488	0.000549	-0.000244	-0.001099	0.001404
-0.001282	0.000916	-0.001282	-0.001282	-0.001038	-0.000854	-0.000977	0.001526
-0.000488	0.000244	-0.000549	-0.000793	-0.001221	-0.000244	0.000793	-0.000488
-0.000305	-0.001221	-0.000671	-0.002075	-0.000732	-0.001343	0.000610	0.000366
-0.001831	-0.001099	0.000549	-0.002319	0.001099	-0.000549	-0.000122	0.000305
-0.001831	-0.000854	0.000793	-0.001038	-0.000122	-0.001099	-0.000671	-0.000305
0.000671	-0.001526	-0.000671	-0.000488	-0.000732	-0.000122	-0.000793	-0.000305
-0.000061	-0.000610	-0.000061	-0.001648	0.000000	-0.001038	-0.000610	-0.000854
-0.001343	-0.001526	0.000183	-0.001770	0.001221	-0.001587	-0.001953	0.000610
-0.001404	-0.000244	-0.000732	-0.000854	0.000244	-0.000488	-0.000427	-0.001343
0.000061	-0.000610	-0.000977	-0.001709	-0.000122	-0.001587	-0.001892	-0.000305
-0.000732	-0.000122	0.001221	-0.000854	-0.000854	0.000366	-0.001343	-0.000305
-0.001282	-0.000793	0.000671	-0.000916	-0.000671	-0.001282	-0.000732	0.000916
-0.000366	0.000244	-0.000610	0.000061	-0.001038	-0.000366	-0.000244	-0.000366
0.001709	0.000000	-0.000610	0.001343	0.000427	0.000427	-0.000427	-0.000366
-0.000916	-0.001343	-0.000793	0.000793	0.001221	0.001343	-0.001221	-0.000244
-0.001282	0.000366	-0.000305	-0.000732	0.002197	0.000000	-0.001526	0.001404
0.000732	0.000977	-0.000244	-0.000671	-0.001099	0.000549	-0.000244	0.000916
0.000305	0.000732	-0.000122	-0.000305	0.000793	-0.000244	0.000244	0.000610
-0.000549	0.000488	0.000977	-0.001465	-0.000549	-0.000427	-0.000793	0.001892
-0.001465	0.000427	-0.000671	-0.002502	-0.000916	-0.001160	0.000427	-0.000610
-0.000610	0.000671	-0.000427	-0.002808	-0.000366	-0.001892	-0.001404	0.000000
-0.001160	0.000732	-0.001465	-0.000916	0.000000	-0.000610	-0.001587	-0.001343
0.000854	-0.000305	0.000305	-0.001892	-0.001404	-0.001038	-0.001099	-0.002075
-0.000671	0.000488	0.000488	-0.001404	-0.001343	0.000061	-0.000977	-0.001526
-0.000671	0.000427	0.000305	-0.001831	-0.000488	0.001221	-0.001038	-0.001953
-0.000610	0.000610	-0.000244	-0.002197	0.000732	0.001282	-0.000732	0.000244
-0.000549	-0.000366	-0.000061	-0.016296	0.001404	0.000366	-0.000549	0.000427
-0.001160	-0.001282	-0.000916	-0.000793	-0.000732	0.000916	-0.001221	0.000671
-0.000671	0.000122	-0.001709	-0.000183	-0.000732	0.000000	-0.001831	0.000122
0.001160	-0.001404	-0.000488	0.000183	-0.000244	-0.001343	-0.001404	0.001648
0.000061	-0.001038	0.000427	-0.000122	-0.000793	-0.001099	-0.000366	0.002075
0.000549	-0.001953	-0.000061	0.000427	-0.000916	-0.001709	0.000366	0.001770
-0.001343	-0.000671	0.000061	-0.001282	-0.000366	-0.000549	-0.002197	0.000183
-0.000305	-0.000549	-0.000671	-0.000854	0.000244	0.000000	-0.001465	0.000183
-0.000305	0.001221	-0.000610	-0.000549	-0.000916	0.000916	-0.001465	0.000000
0.000671	0.001282	-0.001282	-0.001343	-0.000732	0.001831	-0.000854	0.000244
-0.001038	0.001526	-0.000122	-0.000671	-0.000671	0.001343	-0.000610	-0.000793
-0.000305	0.000671	0.000916	-0.000916	-0.000427	0.000000	-0.001343	-0.001465
-0.001404	-0.001465	-0.001404	-0.001343	0.000000	-0.001282	-0.000549	-0.000610
-0.000488	-0.000916	-0.001404	-0.001404	0.000854	-0.001160	-0.000549	0.000854
-0.001526	-0.000732	0.000000	-0.000671	0.000793	-0.001282	-0.001709	-0.000183
-0.000916	-0.000122	-0.000916	-0.001648	-0.000793	-0.001282	-0.001404	-0.000916
0.000488	-0.000793	-0.000122	-0.002686	-0.001404	-0.000671	-0.001160	-0.000610
-0.001282	-0.000610	-0.000671	-0.001648	-0.001038	-0.001343	0.000610	-0.001160
-0.001099	-0.000183	-0.000427	-0.001953	-0.000427	0.001343	-0.001953	-0.001953
-0.000488	0.000732	-0.001038	-0.001526	0.000244	0.000122	-0.001343	-0.000977

0.000244	0.000366	0.000000	-0.001526	-0.000427	-0.000427	-0.000854	-0.001221
-0.000305	0.000854	-0.000183	-0.000732	-0.000610	-0.000183	0.000610	-0.001465
0.000610	0.000061	-0.000549	0.000977	0.000122	-0.000977	-0.000732	0.001038
-0.001221	-0.000793	-0.000061	0.000305	-0.000549	-0.000366	-0.000977	0.001404
-0.001221	0.000549	0.000305	-0.000549	0.000427	0.000183	-0.000916	0.000061
-0.000244	-0.000122	-0.000366	-0.001038	-0.000122	-0.000183	-0.000610	0.000305
-0.000061	-0.000244	0.000122	-0.000549	-0.000183	-0.001404	-0.001160	0.000366
-0.000793	-0.000732	-0.000427	-0.001404	-0.001221	0.000122	-0.001038	0.000549
-0.000305	-0.002075	-0.000549	-0.001831	-0.001099	0.001404	-0.000427	0.000061
0.000427	-0.000916	-0.000061	-0.000854	0.000916	-0.000366	-0.000793	0.000793
-0.000183	-0.001831	0.000000	0.000000	-0.000671	-0.000305	-0.002014	-0.000732
-0.000488	-0.000244	-0.001404	-0.000244	-0.000732	0.000000	-0.001892	0.000183
-0.000488	0.001038	-0.000793	0.000549	-0.000305	0.000610	-0.001282	-0.000122
0.000000	0.000916	0.000122	0.000122	0.000366	-0.000305	-0.000610	0.000366
0.000305	0.000854	0.000427	0.000854	-0.001953	-0.000305	-0.000122	0.001221
-0.000427	0.000366	-0.000671	-0.001221	-0.000916	0.000061	0.000488	0.001038
-0.001038	0.000977	0.001099	-0.001709	0.001099	-0.000366	-0.000305	0.000244
-0.000793	0.000488	-0.001465	-0.002197	0.001038	-0.000854	-0.001038	-0.000122
-0.000732	0.000122	-0.000854	-0.002258	-0.000916	-0.000122	-0.001831	-0.000793
-0.000305	-0.001404	-0.000610	-0.001892	-0.001343	-0.000732	-0.000427	-0.000854
0.000488	-0.000916	-0.000183	-0.000854	-0.000061	-0.001892	-0.000488	-0.000610
-0.000183	0.000671	-0.000610	-0.000854	-0.000977	0.000244	-0.001038	0.000549
-0.000610	-0.000427	-0.000427	-0.000122	-0.001587	0.000061	-0.001160	0.000977
-0.000244	-0.000610	0.000061	-0.001038	0.000305	-0.000427	0.000061	0.001099
-0.000610	-0.000793	-0.001404	-0.001587	0.000244	0.000122	-0.001343	0.000427
0.000305	0.000061	-0.000488	-0.001221	0.000671	0.000183	-0.001953	0.000671
-0.000671	0.000549	-0.000305	-0.002136	-0.000244	-0.000366	-0.000244	0.000671
-0.000366	-0.000916	0.000183	-0.001099	-0.000183	-0.001404	0.000732	-0.000916
-0.000916	-0.001343	-0.000366	-0.000793	-0.001526	0.000305	-0.000305	-0.000183
-0.001831	-0.001404	-0.000244	-0.000549	-0.000061	-0.000244	-0.001343	-0.002014
-0.001160	-0.000854	-0.001038	0.001221	-0.000366	-0.000549	-0.002136	-0.000061
-0.000244	-0.000977	-0.000916	0.000488	-0.000366	0.000000	-0.000977	0.001770
-0.000488	-0.000732	-0.000244	-0.000305	-0.000610	-0.001160	-0.000732	0.001221
-0.000061	0.000366	-0.000122	-0.001404	-0.000061	-0.000061	-0.000977	0.000122
0.000244	0.000244	-0.000183	-0.000549	-0.000549	-0.000671	-0.001221	0.000366
-0.000549	0.000122	-0.000854	-0.001892	-0.000061	-0.000610	-0.000488	0.001343
-0.000854	-0.000122	-0.000732	-0.002075	-0.000244	-0.000305	-0.000366	0.000183
0.000000	-0.000549	-0.000793	-0.001709	-0.001404	0.000916	-0.000549	-0.000366
0.000549	0.000488	-0.000549	-0.001404	-0.000977	0.000793	-0.000732	0.000061
0.000061	-0.001343	-0.000854	-0.000366	-0.000549	-0.000793	0.000122	0.000610
-0.000427	0.000610	-0.000366	-0.000854	-0.000916	-0.001282	-0.001953	0.000427
-0.000366	0.000122	0.000061	-0.000366	-0.000610	-0.001526	-0.001648	0.000366
0.000000	0.000244	0.000305	0.000671	0.000061	0.000916	-0.000488	0.001221
-0.000671	0.001465	-0.000671	-0.002014	0.000671	0.000061	-0.000732	0.000732
-0.000305	0.001038	-0.000061	-0.001831	-0.001160	-0.000732	-0.001587	0.000000
-0.000610	0.000366	0.000366	-0.000061	0.000305	-0.001404	-0.000549	0.000793
-0.000977	0.000000	-0.001282	-0.000061	0.000671	-0.001038	0.000061	-0.000488
-0.000366	0.000183	-0.001587	-0.001038	-0.000427	-0.000671	-0.001404	-0.000061
-0.000427	0.000061	-0.000977	-0.000549	0.000793	-0.000244	-0.001892	-0.001099
-0.001160	-0.001099	-0.000427	-0.001282	0.000061	0.000061	-0.000061	-0.000366
0.000000	0.000061	-0.001404	-0.001099	-0.001709	0.000122	-0.002197	-0.000488
-0.000427	-0.001038	-0.000305	-0.001587	-0.001831	0.000488	-0.000854	-0.000671
-0.000427	-0.001465	0.000549	-0.000488	0.000366	0.000000	0.001038	-0.001343
-0.000488	-0.001038	-0.000549	-0.001099	-0.000793	0.000916	0.000793	0.000488
-0.000610	-0.003723	-0.000854	-0.000610	-0.001099	0.000122	-0.001770	0.000427
-0.001526	-0.001465	-0.000183	-0.000244	0.001709	-0.001587	-0.001282	0.001343
0.001221	-0.000244	-0.000916	-0.001343	-0.000793	0.000244	0.002258	0.000610
0.000610	0.001221	-0.000854	-0.001404	0.000061	-0.000610	0.000488	0.001648
-0.001404	0.000977	-0.000977	-0.001831	-0.000793	-0.000671	-0.000916	0.000122
-0.000488	0.001282	-0.000854	-0.000427	-0.000977	-0.000854	-0.002197	-0.000549
-0.000549	0.002441	0.000488	-0.000610	-0.001282	-0.000610	-0.001709	-0.001648

0.001099	0.000732	-0.001221	-0.000854	-0.000488	0.000305	-0.000793	-0.000671
-0.001526	0.001953	-0.000610	-0.000793	-0.000488	-0.000854	-0.001282	-0.000610
0.000732	0.000671	0.000183	0.000061	-0.000061	-0.000671	-0.001404	0.000244
0.000366	0.001160	0.002014	-0.000305	-0.001587	-0.001343	0.000732	0.001099
-0.000427	-0.000061	-0.000488	-0.000916	-0.000671	0.000183	0.001099	0.001709
-0.001587	0.000366	-0.001648	-0.001404	-0.000732	-0.000427	-0.000854	-0.000793
0.000000	-0.000427	-0.000793	-0.000854	-0.000244	0.001160	-0.001343	-0.000305
0.000244	-0.000732	-0.000549	-0.000977	-0.000671	-0.000916	-0.000916	-0.001221
-0.000244	-0.001587	-0.000916	-0.002014	-0.001099	-0.000671	0.000488	-0.001648
-0.001282	-0.001770	-0.000610	-0.001221	-0.000061	-0.000793	-0.001587	-0.000977
-0.000427	-0.001343	0.000671	-0.000061	-0.001038	0.000977	-0.000366	-0.001282
-0.001404	-0.001648	-0.000427	-0.000183	0.000427	0.000488	0.000488	-0.000671
-0.001221	-0.002258	-0.000977	-0.000427	0.000122	-0.000916	-0.000610	0.001099
-0.000366	-0.001465	-0.000854	-0.000610	-0.000610	-0.000671	-0.001465	0.001221
0.002380	-0.000427	0.000244	-0.001282	0.000000	-0.000732	0.000366	0.000916
0.002258	0.001648	-0.000854	-0.000854	-0.000671	-0.000854	0.001770	-0.001343
-0.000244	0.001282	-0.000366	-0.000427	0.000610	-0.000549	0.000732	0.000488
-0.001831	0.000610	0.000671	-0.002197	0.001282	-0.000549	-0.002197	0.000610
-0.000061	0.002319	-0.001038	-0.001038	0.000366	-0.001099	-0.001770	-0.000488
-0.000671	0.002136	-0.001343	-0.000244	-0.000183	-0.000488	-0.000061	-0.001404
-0.001282	0.000061	0.000122	-0.000732	-0.000488	0.000793	-0.001892	-0.000122
-0.000061	0.000305	0.000549	-0.000854	-0.001343	0.000000	-0.001465	-0.000366
-0.000061	-0.000610	-0.000793	-0.000061	-0.000793	0.000061	-0.001099	0.000488
0.000000	-0.000549	-0.000366	-0.000610	-0.000488	-0.000305	0.000610	-0.000061
-0.000244	-0.002380	-0.000305	-0.001587	-0.000610	0.000366	-0.000549	0.000122
-0.000183	-0.001648	-0.001099	-0.000366	-0.000244	0.000061	-0.001587	0.000366
0.000000	-0.001282	-0.000427	-0.000793	0.000549	-0.000671	-0.001160	-0.001099
0.000000	-0.000122	-0.000488	-0.001038	-0.002197	0.000183	-0.000061	-0.001343
-0.000305	-0.000549	0.000488	-0.001404	0.000000	-0.000427	-0.001099	0.000610
0.000000	0.001160	-0.001404	-0.000244	-0.001343	0.014954	-0.001099	0.000732
-0.000610	0.000427	-0.001892	-0.001160	0.001099	-0.000122	-0.001953	0.000305
-0.000305	-0.001465	-0.000610	-0.000977	-0.001648	0.000610	-0.000122	0.000549
-0.000122	-0.000793	0.001343	-0.002014	-0.000488	-0.001099	-0.000793	0.000610
-0.000488	0.000366	0.001343	-0.001526	-0.001404	-0.001221	-0.002502	0.001160
0.000244	0.000854	-0.000732	-0.001282	-0.000427	0.000366	0.001221	0.000366
-0.000854	-0.000488	-0.001038	-0.002686	-0.000244	-0.001099	0.001465	0.000000
0.000061	0.001160	0.001343	-0.002380	0.001343	-0.001770	-0.001953	-0.000610
0.000000	0.001160	-0.000549	-0.000610	0.000549	-0.001343	-0.002380	0.000061
-0.000183	0.001892	-0.001465	-0.000916	-0.000366	0.000427	-0.000061	-0.000122
0.000916	0.002014	-0.000732	-0.002319	-0.001465	0.000427	0.001404	-0.002136
0.000488	0.001587	0.001648	-0.001282	-0.000732	0.000427	-0.002380	-0.000671
-0.000793	-0.000610	-0.001221	-0.001038	-0.000854	-0.000244	-0.001770	0.000488
-0.000732	-0.001709	-0.001282	-0.001282	-0.000793	-0.000122	0.000549	-0.000122
-0.000854	-0.001343	-0.001160	-0.000977	-0.000305	-0.000366	0.000427	-0.000122
0.000061	-0.002197	0.000671	-0.001282	0.000244	-0.000061	-0.001526	0.000977
-0.000183	-0.000977	0.001038	-0.000366	0.000122	0.001282	-0.001953	0.015564
-0.001221	-0.001526	0.000366	-0.001709	0.000732	0.000427	0.000610	-0.000183
-0.000793	0.000183	-0.000122	-0.001892	-0.001099	-0.001282	0.000549	-0.000122
0.000244	0.000366	-0.000427	-0.002075	0.001038	-0.000244	-0.002014	-0.000549
-0.000488	0.001587	-0.000610	-0.002319	0.000122	-0.000793	-0.001648	-0.000916
-0.001160	0.001465	-0.000793	-0.001404	-0.000061	0.000916	-0.001343	-0.000488
-0.000549	0.001648	-0.000366	-0.001770	-0.000122	-0.001160	-0.000305	0.001831
0.000427	0.000427	-0.000305	-0.000549	-0.000061	0.015137	-0.000671	0.001221
-0.000488	-0.000488	0.000427	-0.001038	0.000549	-0.000366	-0.000977	0.000305
-0.000793	-0.000122	-0.000671	-0.000366	-0.001160	0.000549	-0.000183	0.000549
-0.000549	-0.001587	-0.000122	-0.001526	-0.000061	0.000061	-0.000122	0.000854
-0.000183	-0.001221	-0.000061	-0.001221	0.000366	-0.001282	-0.001831	0.000000
-0.000427	-0.000732	-0.000061	-0.000305	-0.001465	0.000061	-0.000549	-0.001465
-0.001587	-0.001160	0.001221	-0.000977	0.000793	-0.000305	-0.000671	-0.001221
-0.001038	0.000000	0.000793	-0.001099	0.000366	-0.001343	-0.001343	-0.001404
-0.000366	0.000122	-0.001648	-0.000488	0.000549	-0.000671	-0.000916	-0.000671

-0.000732	0.000854	-0.000366	-0.001038	0.001160	-0.000488	-0.001282	-0.000977
-0.002075	0.002197	-0.000061	-0.000488	-0.000732	0.000000	-0.000488	-0.001099
-0.000427	0.001892	-0.000122	-0.000977	-0.000732	0.000122	0.000305	0.000427
0.000061	0.001282	-0.000366	-0.000122	-0.000549	0.000305	-0.000305	0.000061
-0.000183	0.000061	0.000244	-0.001343	-0.000977	0.000427	0.000000	-0.000488
-0.001221	0.000183	-0.000793	-0.001526	-0.000244	-0.000366	-0.001099	-0.000793
-0.000732	-0.000671	-0.000122	-0.001526	-0.000122	-0.000671	-0.002136	0.000427
-0.000366	-0.002808	-0.001953	-0.001892	-0.000061	-0.000122	-0.000549	-0.000549
-0.000427	-0.000549	0.000671	-0.001465	-0.000183	0.000244	-0.000061	0.000122
-0.000427	-0.000610	0.000732	-0.001648	0.000488	0.000000	-0.001526	0.001160
0.000061	0.000183	-0.000732	-0.001831	-0.000244	-0.001160	-0.001526	0.001160
-0.000305	-0.000549	-0.000793	-0.000671	-0.000671	-0.001343	-0.001038	0.002441
-0.000366	0.000000	-0.001404	-0.000610	0.000427	-0.000793	0.000549	-0.000366
-0.000610	0.001343	0.000305	-0.001465	0.001099	-0.000793	-0.001953	0.000610
0.000427	-0.000122	-0.001099	-0.000916	-0.000244	-0.001282	-0.001282	-0.000244
-0.000122	0.000122	-0.000610	-0.000061	-0.001221	-0.001526	-0.000305	-0.001099
-0.001221	-0.000488	0.000977	-0.000366	-0.000122	-0.000244	-0.001038	-0.001770
0.000000	-0.000793	-0.000061	-0.001404	0.000244	-0.000793	-0.001587	-0.000977
-0.000610	0.000366	-0.001343	-0.000977	-0.000793	-0.001404	-0.002075	-0.001099
-0.001648	-0.000061	-0.001648	-0.001282	-0.000488	-0.000793	0.000000	0.000000
0.000916	0.000854	-0.000977	-0.001221	-0.000305	0.000244	-0.001282	0.000549
0.000671	0.000610	0.000000	-0.000793	-0.000488	-0.000549	-0.001404	0.000305
0.000183	0.000122	0.000488	-0.001831	-0.000732	0.000244	-0.000183	0.000610
-0.000916	0.000244	0.001160	-0.001587	-0.000366	0.000183	-0.000671	-0.001465
-0.001038	0.000427	-0.001160	-0.000549	0.000793	0.000305	-0.001831	-0.000122
0.001038	-0.000793	-0.001404	-0.001648	-0.000061	-0.000488	-0.000244	-0.000549
-0.001648	-0.001221	0.000183	-0.001221	-0.000916	-0.001099	0.000183	-0.000427
-0.001770	-0.000427	0.000549	-0.001099	-0.000366	-0.000427	-0.001221	0.000671
0.000183	-0.001038	0.000244	-0.002258	-0.000854	0.000488	-0.001282	-0.000610
-0.000305	-0.001892	0.000549	-0.001587	-0.001282	-0.000305	-0.000977	0.001770
-0.001160	0.000061	0.000122	-0.001465	0.000000	-0.000671	0.000549	-0.014465
-0.001343	0.000244	-0.000366	-0.001892	-0.000610	-0.000671	-0.001648	0.000305
0.000244	0.000671	0.000000	-0.001526	-0.000305	-0.000244	-0.000916	-0.001282
0.001160	0.000244	0.000244	-0.001221	-0.000732	-0.000366	-0.000183	-0.000549
-0.001099	0.001526	0.000183	0.000854	-0.000916	-0.000671	0.000122	0.001099
-0.000732	0.001648	-0.000305	0.000183	-0.000732	-0.000671	-0.001221	-0.000183
0.000610	0.001343	0.000183	-0.015686	-0.000183	0.000610	-0.001892	-0.000854
-0.000183	0.000977	-0.001343	-0.001343	-0.000427	-0.000122	-0.000366	-0.000793
-0.001099	0.000366	0.000977	-0.002319	-0.000916	-0.001343	-0.000549	-0.000854
-0.000793	-0.000488	0.000671	-0.001404	-0.001099	0.000244	-0.001221	-0.001160
0.000305	-0.001465	-0.000061	-0.000671	0.000122	-0.000488	-0.001038	-0.000610
0.000183	-0.001343	-0.000122	-0.002014	-0.001099	-0.000244	-0.001343	0.000549
-0.000671	-0.001709	-0.000305	0.000305	-0.000610	-0.000305	0.000793	-0.000183
-0.001099	-0.001648	-0.000061	-0.000732	-0.001160	0.000610	-0.002258	0.000122
0.000427	-0.001343	-0.000488	0.000000	-0.000427	0.000061	-0.001892	-0.000183
-0.000793	-0.001160	0.000122	-0.000549	-0.000061	-0.001099	0.001038	0.000061
-0.000793	0.000244	0.000671	-0.000610	-0.000549	-0.000488	-0.000732	-0.001343
-0.000427	0.001526	-0.000305	-0.001221	-0.000488	-0.001282	0.001038	-0.000427
-0.000366	0.000305	-0.000793	-0.001953	-0.000366	-0.000488	-0.000305	0.000183
-0.001038	0.001099	-0.000366	-0.002563	0.000732	-0.000183	-0.001953	0.000488
0.000244	0.001648	-0.000671	-0.000610	-0.000427	-0.000549	-0.002563	0.000366
0.000610	0.001587	-0.000061	-0.001160	-0.000610	-0.000061	-0.001282	-0.000732
0.000000	0.000366	-0.000183	-0.000488	-0.000610	-0.000427	0.001709	0.000244
-0.001343	-0.001099	0.001038	-0.001404	-0.000488	0.000122	-0.000854	0.001343
-0.001892	0.001587	-0.000732	-0.000732	-0.000183	-0.000427	-0.001038	-0.000061
-0.000244	-0.001282	-0.000549	-0.000977	0.001587	-0.000244	0.001709	0.000366
0.000732	-0.001404	-0.000183	-0.000305	0.000732	-0.000610	-0.001160	-0.000061
-0.000671	-0.001221	-0.000854	0.000549	0.000305	-0.001770	-0.000916	0.000000
0.000366	-0.000671	0.000305	-0.001099	-0.000488	0.000305	-0.001770	-0.000793
-0.000427	0.000366	0.001282	-0.002014	-0.001526	-0.000793	0.001099	-0.000854
-0.000244	-0.000854	-0.000244	-0.000854	0.000305	-0.001526	-0.002319	-0.000671

-0.000671	-0.000488	-0.000977	-0.001526	-0.000305	-0.000610	-0.002441	-0.000061
-0.000793	-0.000671	-0.001892	-0.001770	-0.001099	-0.000427	0.001038	-0.000793
-0.000427	0.000122	-0.001038	-0.001160	-0.000366	0.000061	0.000732	-0.000366
0.000793	0.000671	-0.000305	-0.002380	-0.000854	0.000183	0.001465	-0.000183
-0.000183	-0.000732	0.000488	-0.001099	-0.000488	-0.000244	-0.000427	-0.000061
-0.000122	0.000305	-0.000793	-0.001343	-0.001404	-0.000488	0.000061	-0.000549
-0.000427	0.001038	0.000610	-0.001282	0.000793	-0.000244	-0.001831	-0.000366
-0.001343	0.001587	-0.000244	-0.000610	-0.001038	0.000244	-0.002502	0.000671
-0.000366	-0.000488	0.000244	0.000427	-0.000610	-0.000244	-0.002075	0.000793
0.000793	0.001526	0.000061	0.000977	-0.001343	-0.000427	-0.000793	0.000427
0.000000	0.001099	-0.000610	-0.000793	-0.001465	0.000793	-0.001587	0.001648
-0.000549	-0.000549	-0.000244	-0.002014	-0.000671	-0.000854	-0.002258	0.000916
-0.000244	-0.001465	-0.000793	-0.002258	0.000305	0.000000	0.001038	0.000732
-0.000977	-0.000916	-0.000244	-0.001526	-0.000305	-0.000305	-0.000427	-0.001587
-0.000671	-0.001160	-0.000793	-0.000427	-0.000366	-0.001160	-0.000488	-0.001343
0.000488	-0.001770	-0.000854	-0.001831	0.000671	-0.000732	-0.002258	-0.001282
0.000549	0.000488	0.001648	-0.000366	-0.001831	-0.001282	0.000977	-0.000793
-0.001465	-0.000061	-0.000305	0.000366	0.000671	0.000793	-0.000305	-0.000427
-0.000793	0.000305	-0.000610	-0.001709	-0.000244	-0.000061	-0.002136	-0.001282
0.000366	0.000305	-0.001038	-0.002502	-0.000305	0.000854	-0.000916	-0.000732
-0.000610	0.001404	-0.000732	-0.002014	-0.001465	-0.000610	0.001404	0.000244
-0.001709	0.001831	-0.000549	-0.002136	-0.000122	-0.000732	-0.001526	0.000610
-0.000244	0.001404	-0.000732	-0.001343	-0.001892	-0.001038	-0.001648	0.000427
-0.000244	0.000916	-0.000610	-0.001770	-0.000854	-0.000977	0.000305	0.000244
-0.001343	0.000793	0.000793	-0.000366	-0.001160	0.000061	0.000000	0.001526
-0.000366	0.000000	-0.001343	0.000488	0.000488	-0.000122	-0.001892	0.000061
-0.000732	-0.002563	0.000183	0.000366	-0.000977	0.001038	-0.002014	-0.000183
-0.000977	-0.000610	-0.000977	0.000488	0.001099	0.001587	0.001587	-0.001343
0.000305	-0.000977	0.001404	0.000610	-0.000549	0.001099	-0.000854	-0.000916
-0.000244	-0.001343	-0.000244	-0.000549	-0.000183	-0.001038	-0.001587	-0.000732
-0.001404	-0.001648	-0.000916	-0.000671	-0.001282	0.001160	-0.001709	-0.000244
-0.000488	0.000549	-0.000427	-0.002075	-0.001831	0.000610	0.000916	0.001343
-0.000122	-0.000732	-0.000610	-0.001038	-0.000732	-0.001587	-0.000122	0.001709
-0.001709	-0.000916	-0.000061	-0.001648	-0.000732	0.000793	-0.001099	-0.000122
0.000000	0.000305	0.000793	-0.001038	0.000488	-0.000366	-0.000671	0.001038
0.000244	-0.000366	-0.001404	-0.001648	0.000732	0.000061	0.000916	-0.000122
0.000366	0.000427	0.000427	-0.000549	-0.000122	-0.000366	-0.001343	-0.001160
-0.000610	0.000061	-0.001465	-0.000366	0.000854	0.000488	-0.002380	-0.001038
-0.000610	-0.000977	0.000854	-0.001587	-0.000671	0.000488	-0.001282	-0.000244
-0.000244	-0.000671	-0.000244	-0.002502	0.002563	-0.000977	-0.001587	-0.000549
-0.001160	-0.000610	0.001038	-0.001953	-0.002258	0.000366	-0.001343	-0.000427
0.000244	0.000793	-0.000916	-0.000854	0.001282	0.000671	-0.000977	-0.000366
-0.000793	0.000732	0.000610	-0.001587	-0.002319	0.000183	-0.000488	-0.000549
-0.000183	-0.000183	-0.001343	-0.000793	0.001831	0.000854	-0.000916	0.000366
-0.000488	0.001404	-0.000793	0.000366	0.001404	-0.001038	-0.001160	0.000183
-0.000244	-0.000183	-0.000977	0.000061	-0.000488	0.000977	-0.000305	0.000549
0.000244	0.001160	0.000916	-0.000122	0.000488	0.000671	0.000183	0.000549
-0.000610	0.000244	-0.000549	-0.000061	0.002563	-0.000366	-0.001404	-0.000793
-0.001099	-0.000183	0.000488	-0.001282	-0.001953	-0.000183	-0.001343	-0.001648
-0.001465	-0.000427	-0.000183	0.000122	0.001465	0.000122	-0.001648	-0.000488
-0.000854	-0.001038	-0.000183	-0.001343	-0.001404	-0.001343	-0.000427	0.000793
-0.000366	-0.000122	-0.000549	-0.001465	0.001465	-0.001831	-0.001831	0.000854
-0.000061	0.000122	-0.000183	-0.001282	-0.001831	-0.001160	-0.001038	0.000000
0.000122	-0.000244	-0.000427	-0.001648	-0.001831	-0.000854	0.001343	0.000671
0.000671	-0.000610	-0.000366	-0.001709	-0.000061	-0.000427	0.000793	-0.000183
-0.000305	0.000488	-0.000793	-0.001648	-0.000061	0.001587	-0.001587	-0.000610
-0.001160	-0.001160	-0.001038	-0.000732	0.000183	0.000000	-0.000610	-0.001099
-0.000244	0.000061	-0.000305	-0.001465	-0.001343	0.000183	-0.000122	-0.000732
0.000427	-0.001038	0.001038	-0.000427	0.000549	-0.000549	-0.000977	-0.000671
-0.000671	0.001282	0.000183	-0.001526	0.000183	-0.001465	-0.002014	-0.000671
-0.000977	-0.000183	-0.000427	-0.000793	-0.001038	0.000488	-0.001282	-0.000061

0.000061	-0.000244	-0.000610	-0.000244	0.000366	0.000549	0.000549	-0.000916
0.000122	0.015259	-0.000488	-0.000916	0.000793	0.000244	-0.002197	0.000000
-0.000610	-0.000732	-0.000183	-0.000977	-0.001404	0.000732	-0.002014	-0.000183
-0.000305	-0.000305	-0.000305	0.000732	0.000061	0.000305	-0.000854	-0.000366
0.000732	0.000183	0.000305	-0.000122	0.000000	-0.001465	0.000549	0.000244
-0.000854	-0.000122	-0.000488	-0.001282	0.001892	-0.000610	-0.000732	-0.000305
-0.001343	0.000488	-0.000610	-0.001038	-0.000977	-0.000427	-0.001404	-0.000183
-0.000916	-0.000732	-0.000610	-0.000244	-0.001038	0.001648	0.000000	-0.000549
-0.000122	0.000488	-0.001160	-0.000488	0.000366	0.000244	0.000427	-0.000366
0.000122	-0.000244	-0.000427	-0.000977	-0.000427	0.001282	-0.000305	0.000793
-0.000793	0.000977	0.000122	0.000244	-0.001831	0.000122	-0.000610	0.000549
-0.001038	-0.000122	0.000977	-0.000244	-0.001099	0.000610	0.000122	-0.000488
-0.000122	-0.001099	-0.000671	-0.001465	0.000366	0.000061	-0.001282	-0.000061
-0.000916	-0.001404	0.000122	-0.000793	-0.000610	-0.000549	-0.000732	0.000183
0.000122	-0.001282	0.000427	-0.001526	-0.001099	-0.001526	-0.000427	-0.000244
0.000000	-0.000977	0.000244	-0.001221	0.000366	-0.001160	-0.001038	-0.000610
0.001160	-0.001953	-0.000366	-0.001282	-0.000122	-0.000916	0.000366	-0.001343
-0.001038	0.000183	-0.000793	-0.000916	0.000000	-0.000916	-0.002319	0.000977
-0.001404	0.000122	-0.000732	-0.001953	-0.001587	0.000000	0.000061	-0.000122
0.000000	0.000183	-0.000671	-0.001404	0.000793	-0.000427	-0.001404	0.001099
0.000061	0.000366	-0.001160	-0.000244	0.001221	-0.001099	-0.000854	0.000305
-0.000549	0.001831	-0.000366	0.000671	-0.001099	-0.001038	-0.001343	-0.000244
0.000305	-0.000061	0.001404	-0.000305	-0.001221	-0.000244	0.000244	-0.000977
0.001099	-0.001404	0.002014	0.001038	-0.000488	-0.000488	0.000549	-0.000671
-0.000732	-0.001038	-0.001587	-0.000244	0.001038	0.000183	-0.001709	-0.000671
-0.000244	-0.000244	0.000305	-0.001282	-0.000793	-0.000061	-0.001038	0.000244
-0.000671	-0.001282	0.000244	-0.001038	-0.001221	0.000000	-0.000977	-0.000122
-0.000305	-0.000793	-0.000244	-0.001892	0.000122	0.000366	-0.000488	-0.000854
0.001404	-0.000854	-0.001160	-0.002197	0.000000	0.000366	0.000061	-0.000122
-0.000366	0.000061	-0.000977	-0.001099	-0.000854	-0.000854	-0.000244	0.000061
-0.000549	-0.001221	0.000427	-0.000488	-0.000977	-0.000366	-0.000183	0.000427
-0.000793	-0.000061	-0.000366	0.000000	-0.000061	-0.000610	-0.000793	-0.000305
-0.000549	0.000427	-0.001343	-0.000061	-0.000977	-0.000427	-0.001587	0.000488
-0.000427	-0.000977	-0.000549	0.000427	-0.001831	0.000305	-0.001892	0.000977
-0.000244	0.001038	-0.000977	0.001160	-0.000183	-0.000854	-0.001282	-0.000305
-0.000671	0.000366	0.001282	-0.001648	-0.000122	-0.000122	-0.000671	0.001038
-0.000549	0.001221	-0.001526	-0.001892	-0.000183	-0.001831	-0.001221	-0.000977
-0.000793	0.000854	-0.000244	-0.002075	-0.000244	-0.000305	-0.000732	0.000000
-0.000366	0.000671	-0.000061	-0.001343	-0.001221	-0.000183	-0.000977	-0.000061
-0.000305	0.000305	-0.000488	-0.001587	0.001099	-0.000488	-0.000732	0.000244
0.000488	-0.000610	0.000610	-0.001709	-0.001038	-0.000916	-0.001770	-0.000916
-0.001221	0.000122	-0.000122	-0.001038	-0.000977	0.000061	-0.000366	-0.001587
-0.000793	0.000427	0.000183	-0.000366	-0.000122	0.000549	0.000549	-0.000977
0.000427	-0.000793	-0.000244	-0.000305	0.000305	0.000122	-0.001099	-0.000366
-0.001160	0.000671	0.000000	-0.000854	-0.001099	0.000854	-0.002136	-0.000793
-0.001831	0.000183	-0.001160	-0.001282	-0.000488	-0.001404	-0.001282	-0.000610
-0.000061	-0.000061	-0.000793	-0.001160	0.000122	-0.000916	-0.000122	0.000244
0.000793	-0.014832	0.000671	-0.002014	0.000854	-0.001282	-0.000732	0.000854
-0.000366	-0.001038	0.000244	-0.001770	-0.001709	-0.001770	-0.002258	0.001343
-0.001709	-0.000732	-0.001099	-0.000488	-0.000671	-0.001526	-0.000854	0.000061
-0.001709	-0.000610	-0.000061	-0.000244	0.000916	-0.001526	-0.000977	-0.001099
-0.000427	-0.000183	0.000000	-0.000183	-0.000366	0.000183	-0.000183	-0.001221
-0.000793	0.000244	-0.000488	-0.000061	-0.000183	-0.000305	0.000122	-0.000427
-0.000305	-0.000183	-0.001160	0.000488	-0.001160	0.000427	-0.000732	0.000549
-0.000793	-0.000305	0.000122	-0.000793	-0.000427	-0.001038	-0.001526	0.000366
-0.000183	-0.000427	0.000000	-0.000916	0.000488	-0.001587	-0.000610	-0.000671
0.000488	-0.000244	-0.000305	-0.002075	0.001038	-0.001282	0.000122	0.000183
-0.000366	0.000000	-0.001099	-0.000916	-0.000977	0.000000	-0.000793	-0.001038
-0.000244	0.000183	0.001587	-0.001160	0.000061	-0.000061	-0.001404	0.000183
0.000061	0.000244	0.000793	-0.001526	0.000061	-0.000305	0.000549	-0.001282
0.000061	0.000916	-0.000977	-0.001709	-0.001099	-0.000244	0.000793	-0.001160



-0.000366	0.000549	-0.001587	-0.000671	-0.000671	0.000305	-0.000610	-0.000854
-0.000427	0.000183	-0.001282	-0.000122	0.001160	-0.000061	-0.002563	-0.000549
-0.000793	0.001038	0.001465	-0.001465	0.000732	0.001099	-0.002502	0.015198
0.000549	0.000549	-0.000305	-0.000610	0.001038	-0.000732	0.000244	-0.000549
-0.000732	-0.000916	-0.000488	-0.000793	-0.000183	0.000366	-0.000427	-0.001160
-0.000610	-0.000244	-0.000610	-0.000671	0.000244	-0.000244	-0.001343	-0.000671
-0.000671	-0.000061	-0.000366	-0.001099	-0.000610	0.000549	-0.000366	-0.000305
-0.000488	-0.000122	-0.001160	-0.001099	-0.000244	-0.000488	-0.001221	-0.000427
0.000427	-0.000916	-0.000793	0.000610	-0.001221	0.000305	-0.002014	-0.000671
-0.000427	-0.000427	-0.001160	-0.001221	-0.001221	-0.001404	-0.001892	0.000793
-0.001099	0.000854	-0.000549	-0.001038	-0.000488	-0.000916	-0.000366	0.001160
-0.001282	0.000488	-0.000732	-0.000488	-0.000305	-0.001099	-0.000793	0.001770
-0.000732	0.000916	-0.000183	-0.000061	0.000000	-0.001282	0.000061	0.001221
-0.001221	-0.000671	-0.001160	-0.001160	0.000061	-0.000610	-0.000549	0.001221
-0.000610	0.001099	-0.000793	-0.001343	0.000427	0.000549	-0.001099	-0.000793
0.000854	-0.000122	0.000977	-0.000610	0.001038	-0.000061	0.000366	-0.000977
-0.000366	-0.000183	0.000305	-0.000244	-0.000305	0.000000	-0.001404	-0.000366
-0.000488	-0.000061	-0.000916	0.000305	-0.001099	0.000305	-0.000671	-0.001099
-0.001038	0.000671	-0.000122	-0.000244	0.000366	-0.000061	-0.000488	-0.000549
-0.001099	-0.000183	-0.000854	-0.000977	-0.000061	-0.000305	-0.001099	-0.000122
-0.000122	-0.000061	-0.000061	-0.001099	0.001587	-0.001343	-0.000732	0.001282
0.000610	-0.000610	-0.000122	-0.000488	-0.001770	-0.000732	0.002075	0.000061
0.001038	-0.000671	-0.000732	-0.000916	-0.000305	-0.000183	-0.000061	0.000488
-0.001221	0.001404	-0.000488	-0.000366	-0.000305	-0.000305	-0.000671	-0.000183
-0.000671	-0.001282	-0.000122	0.000366	0.000183	0.001221	-0.001221	-0.001282
-0.000793	-0.000671	-0.000366	-0.002136	-0.001221	0.000183	-0.000793	-0.001343
0.000854	0.001160	-0.000305	-0.000793	-0.000305	0.001099	-0.001831	-0.000854
-0.000305	0.000366	0.000977	-0.001587	0.000671	-0.000488	-0.001709	-0.000549
-0.000488	-0.000061	0.001282	0.000427	-0.000977	-0.001526	-0.000061	-0.000183
-0.000061	0.000244	0.000671	-0.000732	-0.001770	-0.001892	0.002197	-0.000122
-0.000122	-0.000427	-0.000671	-0.000977	0.000122	-0.001831	0.000366	0.001831
-0.001099	-0.000549	-0.001526	0.014404	0.001160	-0.002380	-0.001770	0.000305
-0.000732	-0.001282	-0.000916	0.000183	-0.000427	0.000793	-0.000916	-0.001160
-0.000122	0.000427	-0.000549	-0.000366	-0.000366	-0.000366	0.000549	-0.001831
-0.001282	0.000061	-0.000183	-0.000916	0.000122	0.000244	-0.001282	-0.000671
-0.001587	0.000427	0.000244	-0.000061	-0.000183	-0.001160	-0.000793	-0.001038
-0.000427	0.001038	0.001343	-0.001526	-0.000061	0.000000	0.000122	-0.001526
-0.000854	-0.000183	-0.001221	-0.001587	-0.000549	0.000854	-0.002319	-0.000366
-0.001648	-0.000061	-0.001648	-0.001099	0.000183	0.000305	-0.001099	0.000183
-0.000732	0.000793	-0.000244	-0.001282	0.000061	-0.001648	-0.002136	0.000793
0.000793	-0.000122	0.000183	-0.001587	-0.000610	-0.000061	0.000610	0.000427
0.000366	-0.000244	0.000244	-0.000793	0.000122	-0.000427	-0.000549	0.000854
-0.001038	-0.000244	-0.000854	-0.000732	-0.000854	-0.001770	-0.001587	0.001892
-0.001465	-0.001160	-0.000427	-0.001282	-0.001587	-0.000061	-0.002319	0.001282
-0.000244	-0.000183	0.000244	-0.000916	0.000061	0.000427	0.001160	0.000977
-0.000122	-0.000488	-0.001282	-0.000732	-0.000366	0.001770	-0.002563	0.000916
-0.000854	-0.000549	-0.001099	0.000183	-0.000305	-0.000183	-0.000061	-0.000366
0.001099	-0.000061	0.000183	-0.000366	-0.000366	-0.000122	-0.000732	-0.001465
-0.000122	0.001221	0.000427	-0.000916	0.001099	-0.000549	0.000488	0.015564
-0.000488	-0.000183	0.000000	-0.001160	0.001221	-0.001526	-0.001892	0.000183
-0.001221	0.000427	-0.000244	-0.000977	-0.001099	-0.001038	-0.000244	-0.001099
-0.000122	-0.000671	-0.000183	-0.000549	-0.000854	-0.000183	-0.000671	-0.001282
0.000488	0.000183	-0.000305	-0.000549	-0.000183	0.000366	0.000549	-0.001282
0.001648	-0.000122	0.000427	-0.001038	0.000061	0.000000	-0.000854	-0.000427
-0.000366	0.001587	-0.000183	0.013977	-0.000305	-0.000427	-0.000549	-0.000854
-0.001709	0.000305	-0.000244	-0.000854	-0.000122	0.000610	-0.000671	-0.001648
-0.000305	0.001282	-0.000854	-0.000793	0.001465	0.000000	-0.001038	-0.000610
0.000916	-0.000305	0.000427	-0.001587	0.000244	-0.001099	-0.002197	0.000000
-0.000244	0.000122	0.001343	0.000000	-0.000977	-0.001160	-0.000244	0.000305
0.000061	-0.000061	0.000000	-0.002319	-0.000977	-0.001099	0.000183	-0.001160
0.000000	-0.000916	-0.001770	-0.001099	-0.001221	-0.001709	-0.001099	0.000610

-0.000366	0.000244	-0.000793	-0.001221	0.000244	-0.000977	-0.002075	0.000244
-0.001770	-0.000610	-0.000610	0.000183	-0.001038	-0.000427	0.000305	-0.000366
-0.001404	-0.000977	-0.001099	-0.000427	0.000000	-0.001221	-0.000977	-0.001282
0.000549	-0.000916	0.000671	-0.000549	-0.000488	-0.001282	-0.001587	-0.000244
-0.000305	0.000122	0.003113	-0.001038	-0.000244	-0.000916	-0.000854	0.000793
0.000427	-0.000427	-0.000916	-0.001648	-0.000122	-0.001404	0.000122	-0.000549
-0.000122	-0.000732	-0.002258	-0.000366	-0.000061	0.002258	-0.000916	0.000122
-0.000061	-0.000732	-0.001526	-0.001343	0.000671	-0.000061	-0.001953	-0.000977
-0.000732	-0.000122	-0.001038	-0.001099	-0.001160	0.000366	-0.002441	0.000610
-0.000732	0.001526	-0.000671	0.000244	-0.000671	-0.000183	-0.000977	-0.000366
-0.000183	0.001648	0.001099	-0.000244	-0.000549	-0.001282	-0.000610	-0.001160
0.001160	0.000427	0.000000	-0.000427	-0.001526	-0.000244	-0.000427	0.000244
-0.001282	0.000977	0.000000	-0.001221	0.000366	0.000183	0.000061	-0.000122
-0.000671	-0.001160	-0.001099	-0.000671	0.000183	0.000366	-0.000427	0.000427
-0.003357	0.000000	-0.000916	-0.001404	0.000488	0.000854	-0.000732	0.000000
0.006104	-0.001526	-0.001404	-0.001648	-0.000732	0.000061	-0.001770	0.000549
-0.003784	-0.001099	-0.000916	0.013794	-0.000488	-0.001099	0.000244	0.000427
-0.002136	-0.000854	0.001343	0.000366	-0.000549	0.000000	-0.000427	-0.000061
0.005676	-0.000610	-0.000244	0.000366	-0.001465	0.000244	-0.001160	0.000061
-0.005371	-0.000610	-0.000183	-0.000183	-0.000610	-0.000427	-0.000916	-0.001038
0.000183	-0.000793	-0.001282	-0.000549	-0.000122	-0.000916	-0.001038	-0.000977
0.001099	-0.000916	-0.000793	0.000244	-0.000244	-0.000916	-0.000793	-0.001831
-0.002808	-0.000610	0.000488	-0.002075	-0.000183	-0.002197	0.001343	-0.000183
-0.003113	-0.001038	0.000732	-0.002441	-0.000793	-0.001038	-0.000854	-0.000549
-0.001648	-0.000427	-0.000671	-0.001953	-0.000488	-0.000488	-0.000854	0.001099
0.002380	-0.000671	-0.000427	-0.002014	0.001404	-0.000671	-0.000183	-0.000916
0.000793	-0.000122	0.000122	-0.001404	0.000549	-0.000061	-0.000854	0.000000

## Appendix C: Processed data

[illegible]

















0.000000	0.000000	-0.004027	0.000000	0.000000	0.003509
0.000000	0.000000	-0.004027	0.000000	0.000000	0.003509
0.000000	0.000000	-0.004027	0.000000	0.000000	0.003509
0.000000	0.000000	-0.004027	0.000000	0.000000	0.003509
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0.000000	0.000000	-0.004027	0.000000	0.000000	0.003509
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0.000000	0.000000	-0.004027	0.000000	0.000000	0.003509
0.000000	0.000000	-0.004027	0.000000	0.000000	0.003509
0.000000	0.000000	-0.004027	0.000000	0.000000	0.003509
0.000000	0.000000	-0.004027	0.000000	0.000000	0.003509
0.000000	0.000000	-0.004027	0.000000	0.000000	0.003509
0.000000	0.000000	-0.004027	0.000000	0.000000	0.003509
0.000000	0.000000	-0.004027	0.000000	0.000000	0.003509
0.000000	0.000000	-0.004027	0.000000	0.000000	0.003509