Aaron Oustrich
ARTHC 111
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Stochastic Perfection

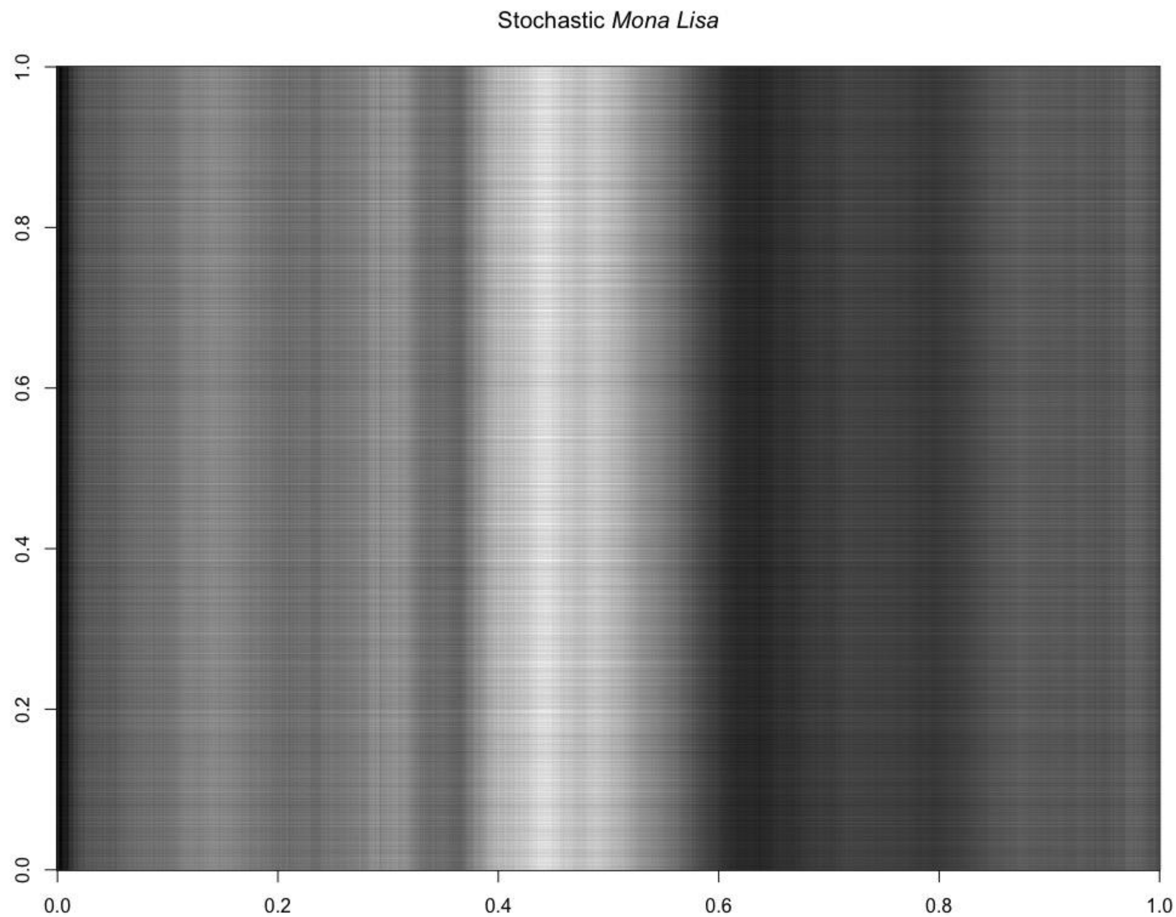
For my art project I decided to use math and computers to represent famous art works in a different way than we're used to seeing them. I was inspired by lectures from this class and knowledge I've gained from other classes. I wrote some R code that can grayscale any image and then create a matrix of the grayscale values. It then multiplies that matrix by another matrix of compatible size and outputs a new grayscale image of the product. The second matrix can either be randomly generated values, the transpose of the original image, or the grayscale values of a second image.

This art project was more philospophical than physical; more like "Comedian" by Maurizio Cattelan or "Untitled" (Portrait of Ross in L.A.) by Felix Gonzalez-Torres than anything by Raphael or Da Vinci. I really enjoyed the lecture on Islamic art because I really liked their philosophy on the nature of God. I, too, believe He is a Being of Order and find beauty in the mathematical patterns in nature. I loved seeing the complexity in their mosques' architecture and decoration and enjoyed their use of patterns and tesselations.

I study Statistics and Data Science and have learned to see the beauty in mathematics and computer science. Some proofs are more elegant than the Mona Lisa, some equations are as abstract as Whistler's "Nocturne," but simplify more than minimalist art. Travis Anderson's admonitions to "work" to understand art especially apply to math and computer science because their beauty isn't always noticed or understood at first glance. For this project I wanted to express something important to me and offer a new way of looking at art.

My original idea was just to take the grayscale values of an image and multiply them by randomly generated values. I thought about Vasari and Winckelman's ideas about Renaissance and Classical art and thought I could use some of their examples of “perfect” art and transform them with a stochastic (random) process. While writing the code and thinking about the idea behind this project, I had the idea to add functionality to multiply by the transpose of the image or another image all-together to sort of “combine” two paintings. One of the things I hadn’t anticipated about the transpose option (though the “behind the scenes” linear algebra makes sense after the fact) was the subtle diagonal line through the resulting pictures.

I really liked that some of the pictures I created have a very prominent line or grid pattern because it shows patterns in famous works of art that cannot be seen in the original picture. I considered making the final pictures a color scale other than grey but ultimately chose against that because there is no dividing line between what is and isn’t art and since art isn’t black or white I though my pictures should be somewhere in between. For this reason, I also chose not to remove the axis scale markers.


Stochastic Mona Lisa
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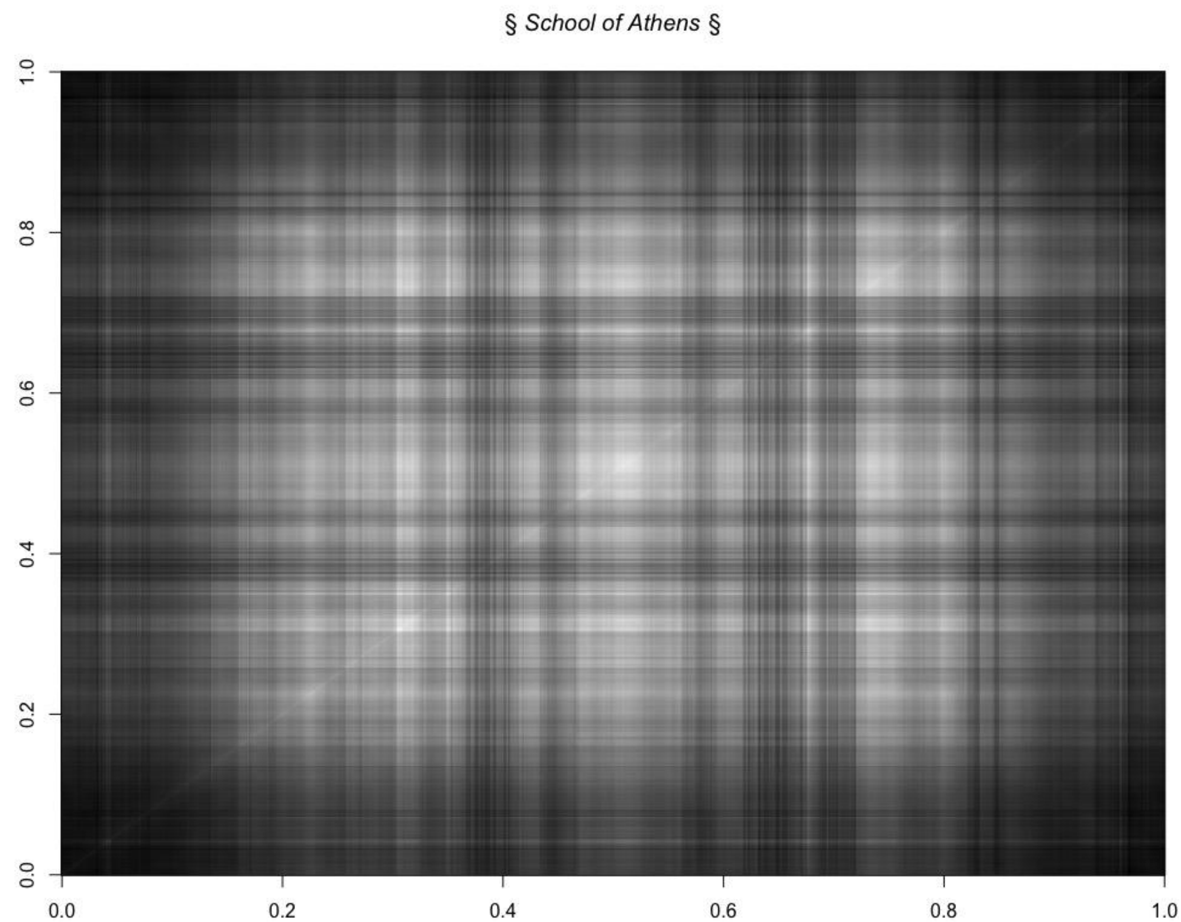
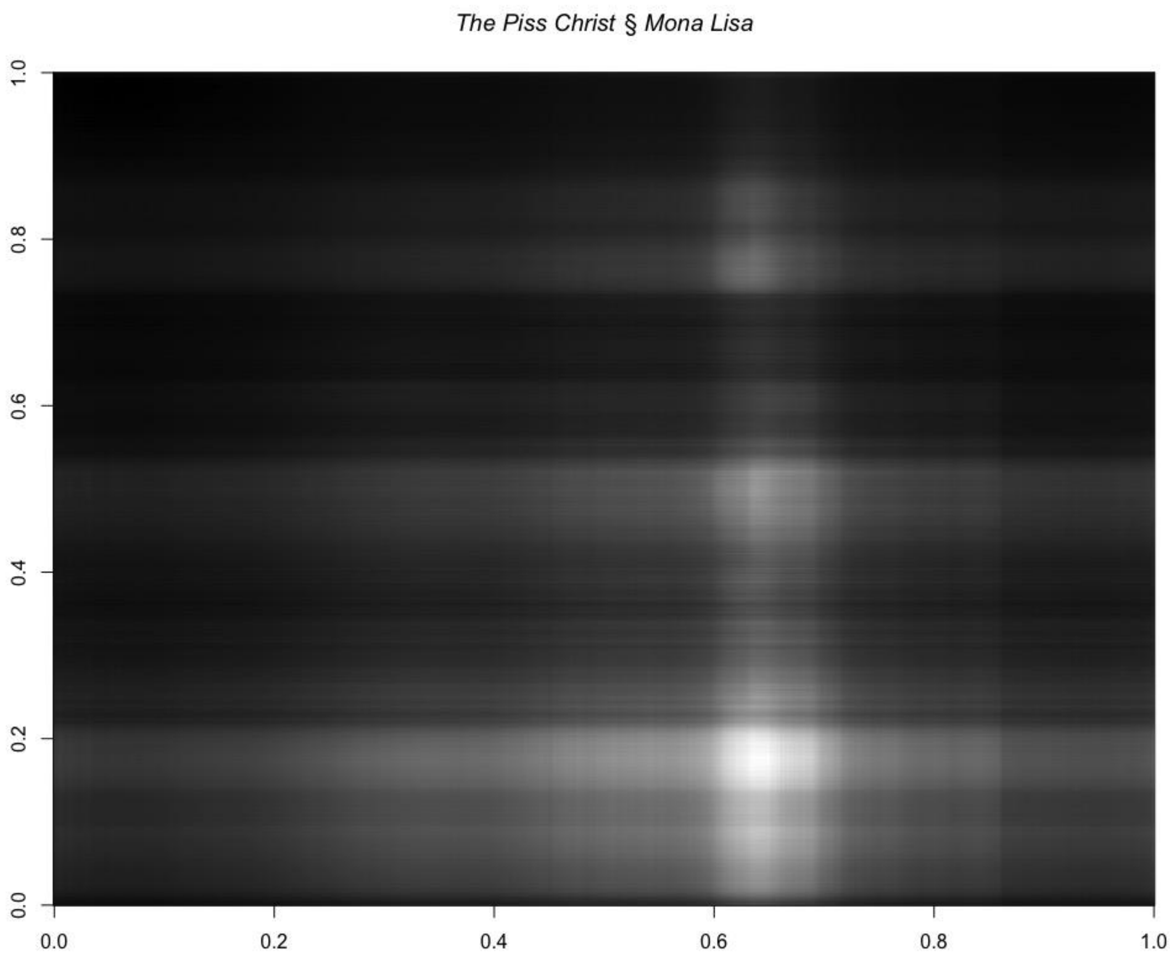
0.2
0.4
0.6
0.8
1.0


§ School of Athens §
0.0
0.2
0.4
0.6
0.8
1.0
0.0
0.2
0.4
0.6
0.8
1.0


The Piss Christ § Mona Lisa
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0.4
0.2
0.0
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0.2
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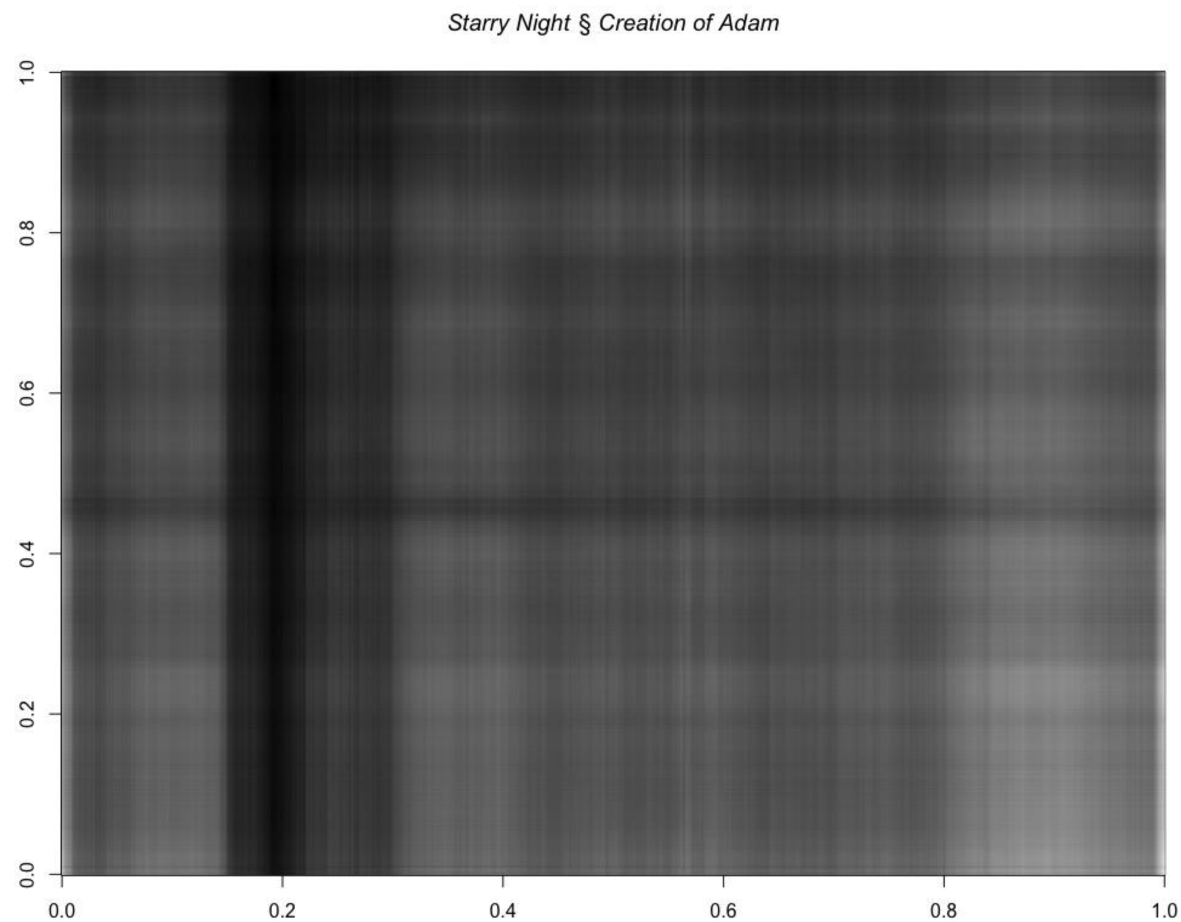

Starry Night § Creation of Adam
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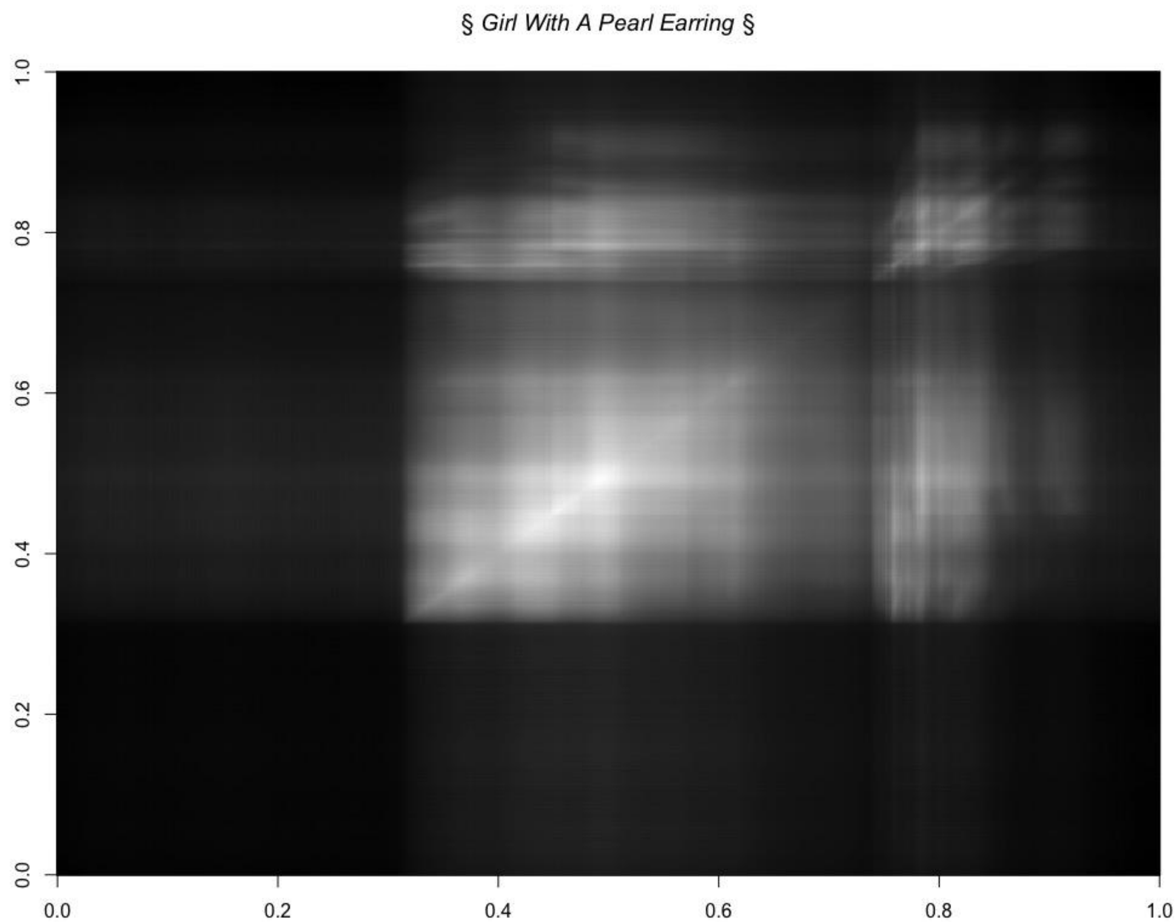
§ Girl With A Pearl Earring §
0.0
0.2
0.4
0.6
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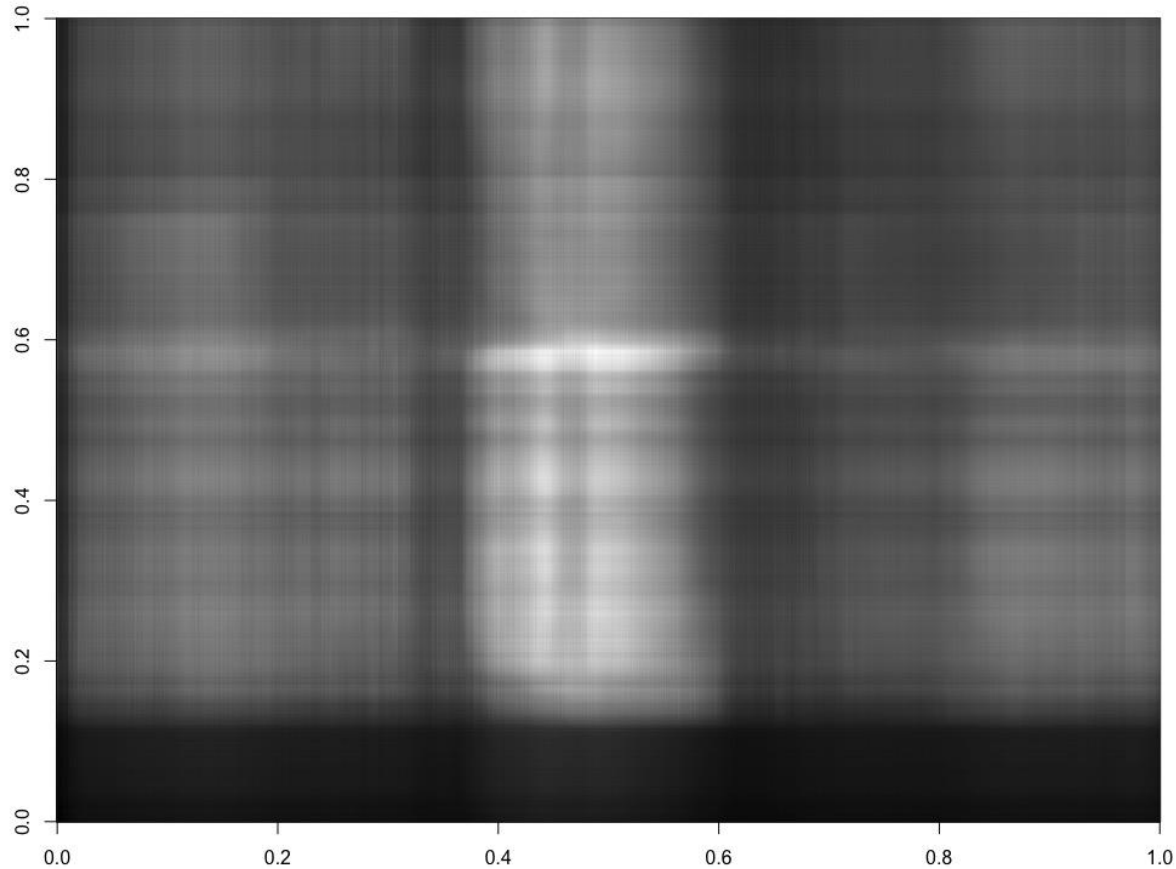
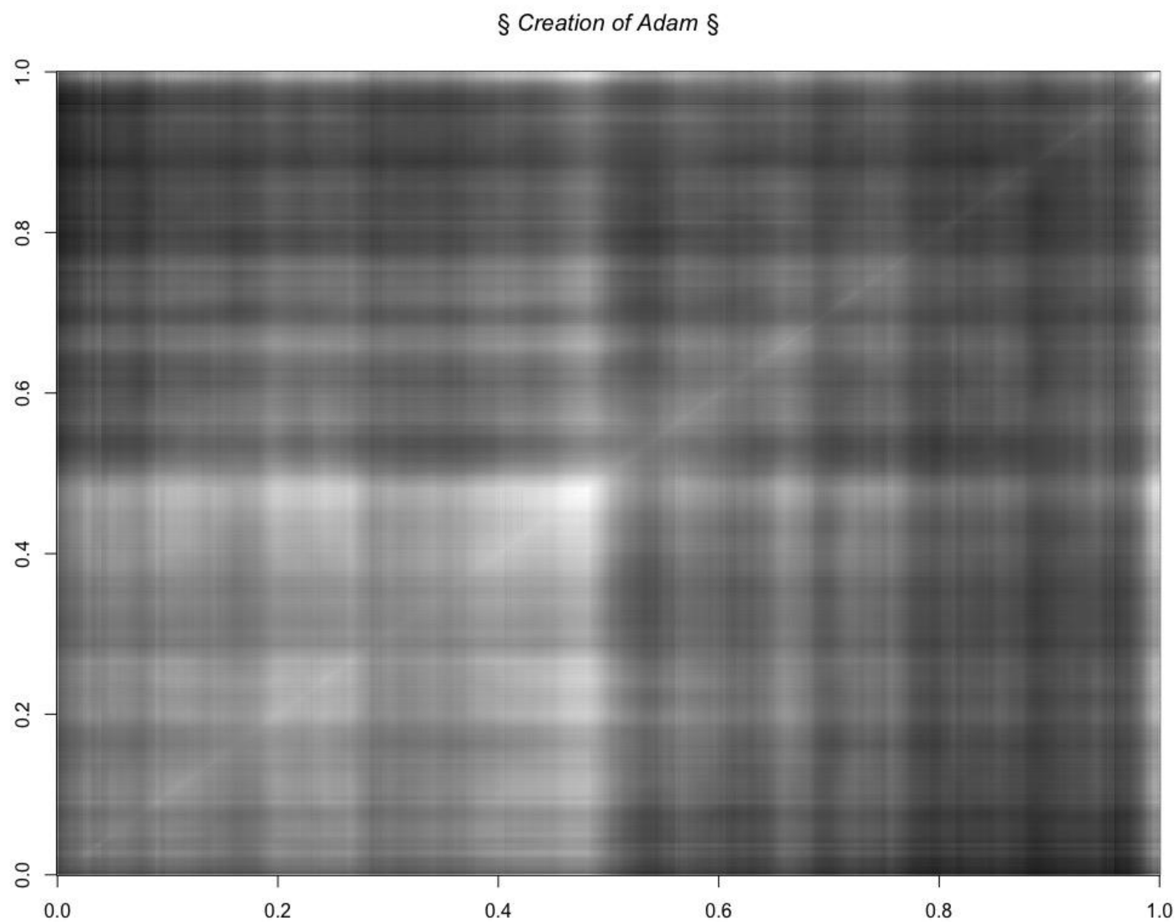
Mona Lisa § Girl With A Pearl Earring




§ Creation of Adam §
0.0
0.2
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0.8
1.0
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