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[http://www.stefanides.gr/pdf/GOLDEN_ROOT_SYMMETRIES_OF_GEOMETRIC FORMS by Panagi...](http://www.stefanides.gr/pdf/GOLDEN_ROOT_SYMMETRIES_OF_GEOMETRIC_FORMS_by_Panagi...)

WORK RELATED TO THE QUADRATURE OF THE CIRCLE VIA INTERPRETING PLATO'S TIMAEUS " MOST BEAUTIFUL TRIANGLE"

This work, presented to various conferences, is a proposed interpretation of Plato's Timaeus Scalene Orthogonal Triangle by Panagiotis Stefanides.

It is noted here that, a similar, constituent part of this triangle but not the same, is the Kepler triangle discovered by Magirus .

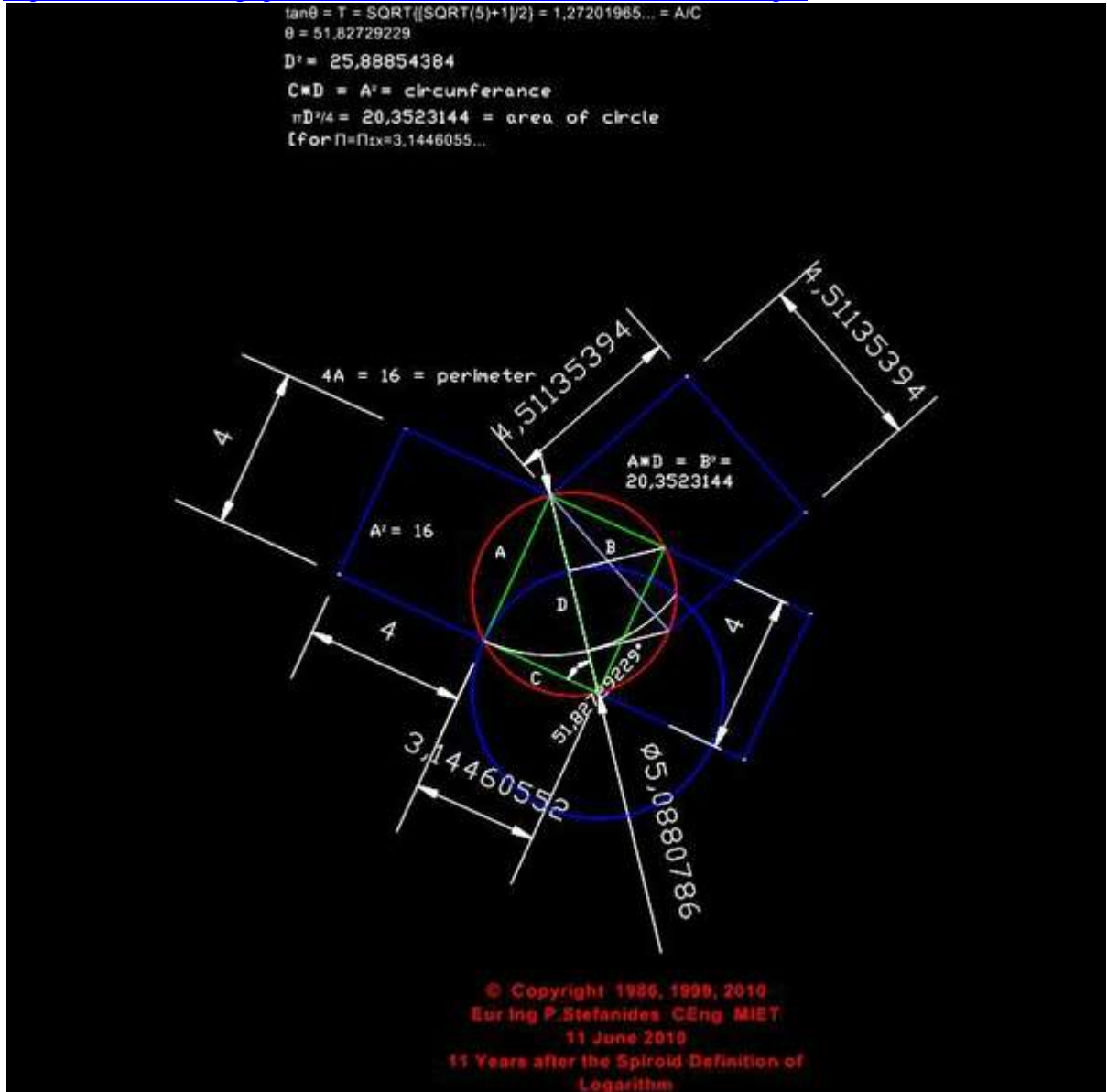
Quadrature of the circle by compass and ruler is achieved based on the special quality of this triangle [a quadrature triangle] and its relationship with circle, the parallelogramme and the square.

Autocad used: Geometry and Vector definition by Panagiotis Stefanides assisted for the Computerized AutoCad Drawing by Dr. Giannis Kandyas.

Computerized AutoCad Drawing by Dr. Giannis Kandylas.

More information:

http://www.stefanides.gr/pdf/2012_Oct/PHOTO_09_PCST_GEOMETRY.pdf



QUADRATURE OF THE CIRCLE

AUTOCAD

2009

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AUTOCAD

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<http://www.stefanides.gr/Html/QuadCirc.htm>

SATISFYING VALUE OF $\pi = 4/\sqrt{\text{GOLDEN RATIO}} = 3.14460551..$

Autocad used: Geometry and Vector definition by Panagiotis Stefanides assisted for the Computerized AutoCad Drawing by Dr. Giannis Kandyas.

More information:

http://www.stefanides.gr/pdf/2012_Oct/PHOTO_12.pdf

this triangle [a quadrature triangle] and its relationship with circle, and the square:

[Ref my web-link: http://www.stefanides.gr/Html/theo_circle.htm]

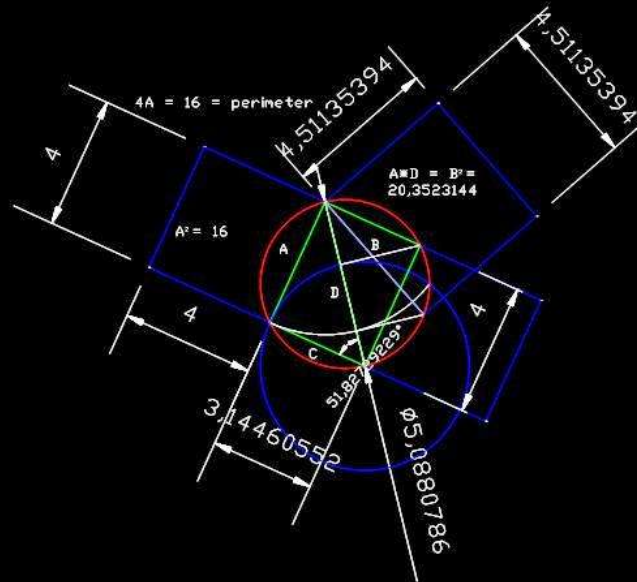
**Autocad used: Geometry and Vector definition by Panagiotis Stefanides assisted for the
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More information:

http://www.stefanides.gr/pdf/2012_Oct/PHOTO_13_GEOMETRY_DESIGN.pdf

**POSTERS EXHIBITED IN THE CONFERENCE
MATHEMATICAL ART GALLERIES**

$\tan\theta = T = \text{SQRT}([\text{SQRT}(5)+1]/2) = 1,27201965... = A/C$
 $\theta = 51,82729229$
 $D^2 = 25,88854384$
 $C \cdot D = A^2 = \text{circunferance}$
 $\pi D^2/4 = 20,3523144 = \text{area of circle}$
 [for $\pi = \pi_{ex} = 3,1446055...$



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 Eur Ing P.Stefanides CEng MIET
 11 June 2010
 11 Years after the Spiroid Definition of
 Logarithm

For: $\pi = 4 / \sqrt{\varphi}$

Quadrature of the Circle, Compass and Ruler - NOVEL CONCEPT - via "The Quadrature Triangle"

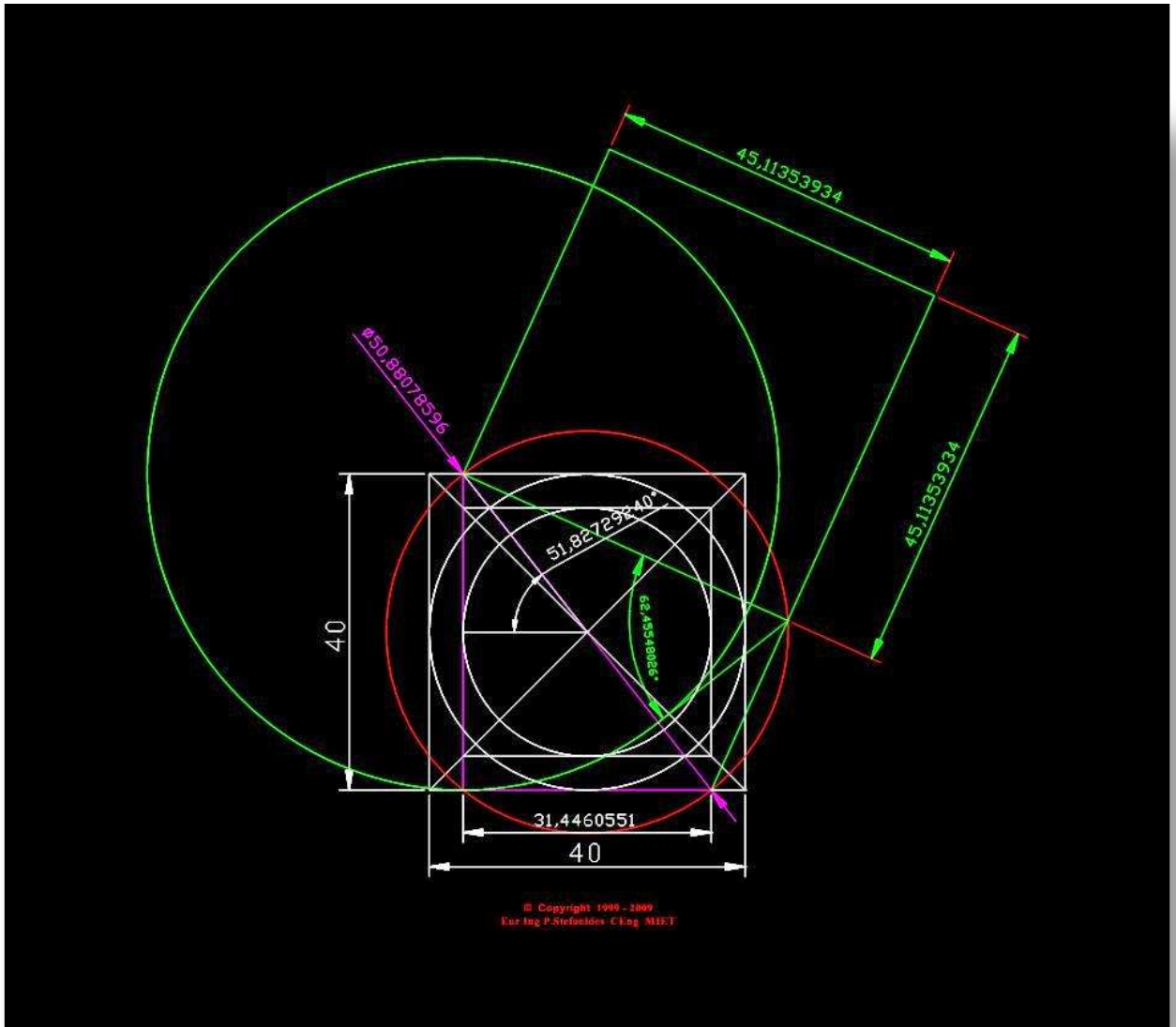
$D = 4 * \sqrt{\varphi} = 5.0880786...$, [Red Circle], $\pi * D = 4 * 4 = 16 = \text{Square [Side 4] Perimeter} = \text{Circle [Red]}$

Circumference, $[\pi/4] * D^2 = 16 * \sqrt{\varphi} = [4.51135394..]^2 = \text{Circle [Red] Area} =$
 $= \text{Square [Side 4.51135394..] Area} = 20.3523144..$

Geometry Design and Vector Definition of Coordinates by P.Stefanides, <http://www.stefanides.gr>

AutoCad Computerized Drawing by Dr. J. Kandylas

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For: $\pi = 4 / \sqrt{\varphi}$

Quadrature of the Circle, Compass and Ruler - NOVEL CONCEPT - via "The Quadrature Triangle"

$D = 40 * \sqrt{\varphi} = 50.8807859..$, $\pi * D = 4 * 40 = 160 = \text{Square [Side 40] Perimeter} =$
 $= \text{Circle[Red] Circumference}$, $[\pi/4] * D^2 = 16 * \sqrt{\varphi} = [45.1135394..]^2 = \text{Circle[Red] Area} =$
 $= \text{Square [Side 45.113539..] Area} = 2035.2314..$

*Geometry Design and Vector Definition of Coordinates by P.Stefanides, <http://www.stefanides.gr>
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<http://gallery.bridgesmathart.org/exhibitions/2014-bridges-conference>

<http://gallery.bridgesmathart.org/exhibitions/2014-bridges-conference/panagiotis-stefanides>

Bridges Seoul 2014
Mathematics, Music, Art, Architecture, Culture
Gwacheon National Science Museum
Seoul, Korea

August 14-19, 2014 (Thursday-Tuesday)

<http://bridgesmathart.org/bridges-2014/2014-art-exhibition/>

