Exponential Model - Quadratic Anhysteretic from Gedney 6/17/2020

## Model Definition

|  |  |
| --- | --- |
|  |  |
| where |  |

## For :

The virgin curve is fit by fixing (read from susceptibility graph) and varying . In all graphs, blue is the 8k loop from Netza’s data, and orange is the model.

|  |
| --- |
| A close up of a map  Description automatically generated  Figure |

The major loop is fit by varying first and then both and . Finally, all variables are varied to tighten the fit. This is the best fit found with this process.

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| A close up of a map  Description automatically generated  Figure |

## For :

The virgin curve is fit by fixing (read from susceptibility graph) while varying .

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| --- |
| A close up of a map  Description automatically generated  Figure |

The major loop is fit by varying first and then both and . Finally, all variables are varied to tighten the fit. This is the best fit found with this process.

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| A close up of a map  Description automatically generated  Figure |

An attempt was made to raise the mid-loop susceptibility by lowering and fixing

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| A close up of a map  Description automatically generated  Figure |

Each plot is visually closer to the data. However, the important parts are further off. Therefore, this method is not used again.

# Exponential Model - by Gedney 6/8/2020

## Model Definition

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|  |  |
| where |  |

This model was fit with the same procedure as the previous model.

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| A close up of a map  Description automatically generated  Figure |

## 1k Minor Loop

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| A close up of a map  Description automatically generated  Figure |

## 2k Minor Loop

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| --- |
| A group of people on a map  Description automatically generated  Figure |

## 4k Minor Loop

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| --- |
| A group of people on a map  Description automatically generated  Figure |

## 6k Minor Loop

|  |
| --- |
| A close up of a map  Description automatically generated  Figure |

# Exponential Model –Quadratic Anhysteretic from Carl 6/8/20

## Model Definition

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# Exponential Model – Quadratic Anhysteretic from Carl 7/7/20

## Model Definition

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# Exponential Model – Remanent Hc Function – Gedney 7/7/20

## Model Definition

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|  |  |

# Exponential Model – Travers 07/15/20

## Model Definition

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# Exponential Model – Gedney 07/16/20

## Model Definition

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|  |  |
| where |  |
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