

Lecture 30

Global Extrema

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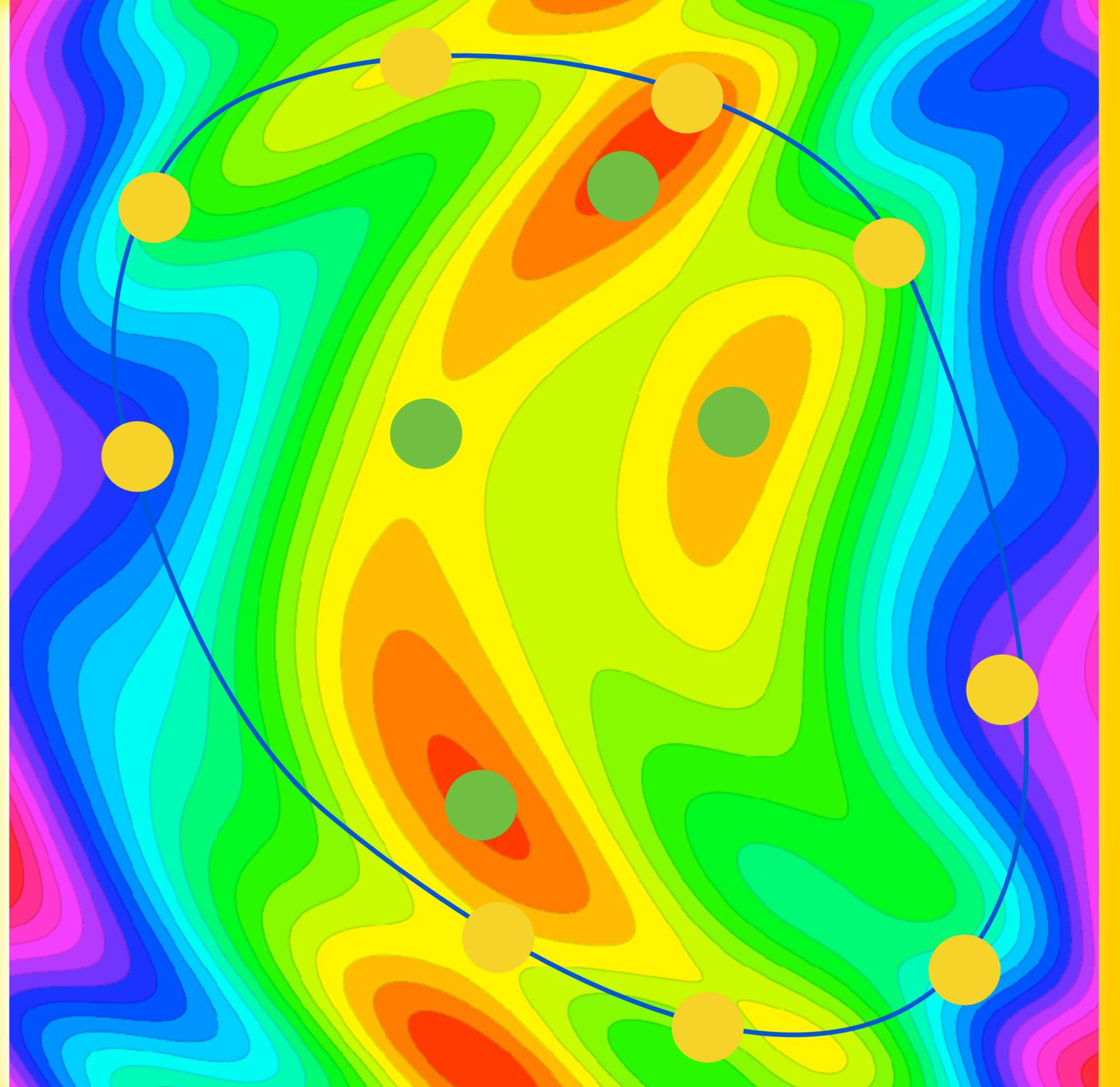
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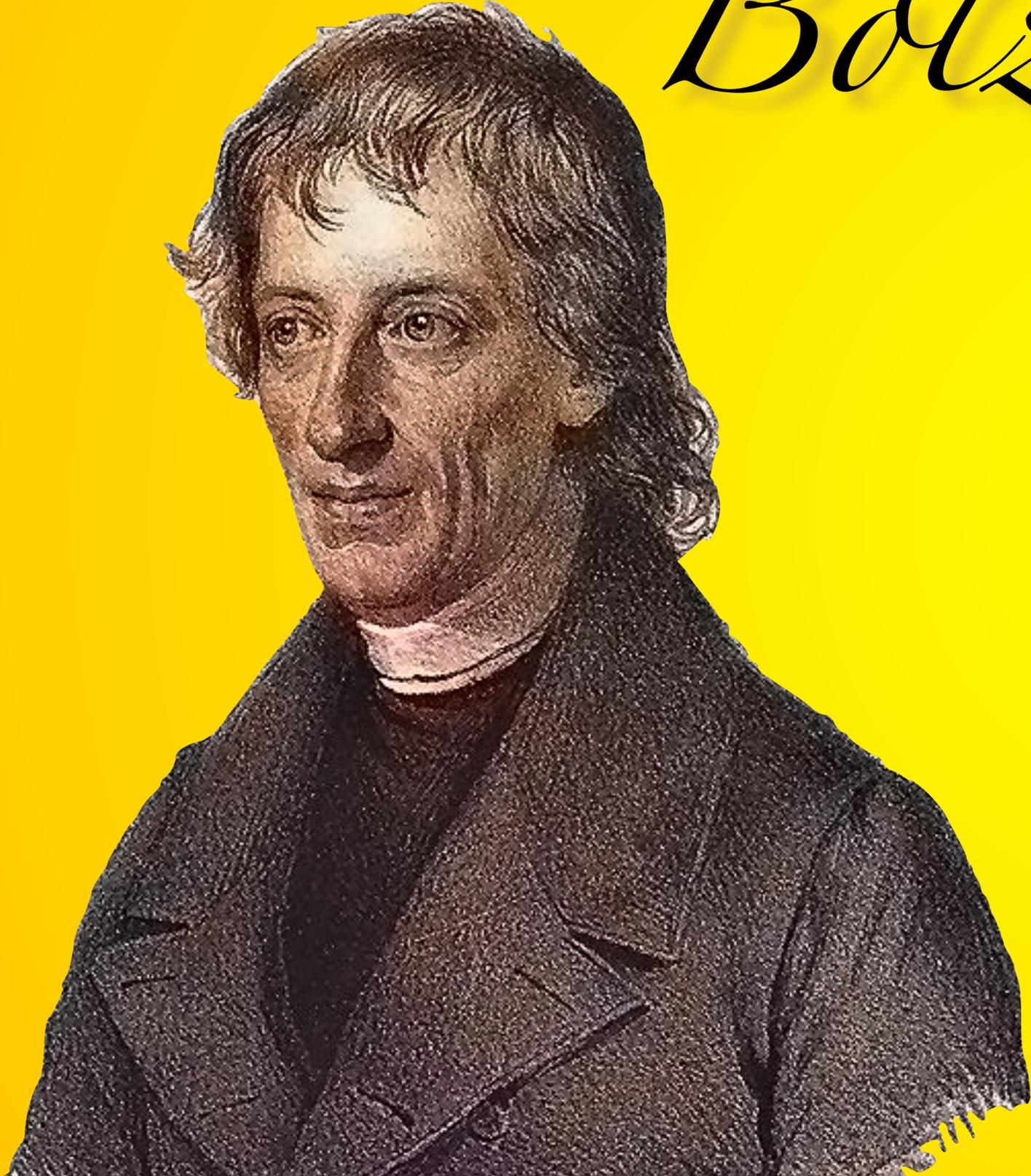
Global Extrema

Global maxima

When finding
global maxima, we
also need to look
at the boundary or
at infinity.



Bolzano Theorem



Extremal Value
Theorem: A continuous
function on a closed and
bounded domain has both a
global
maximum and a global
minimum.

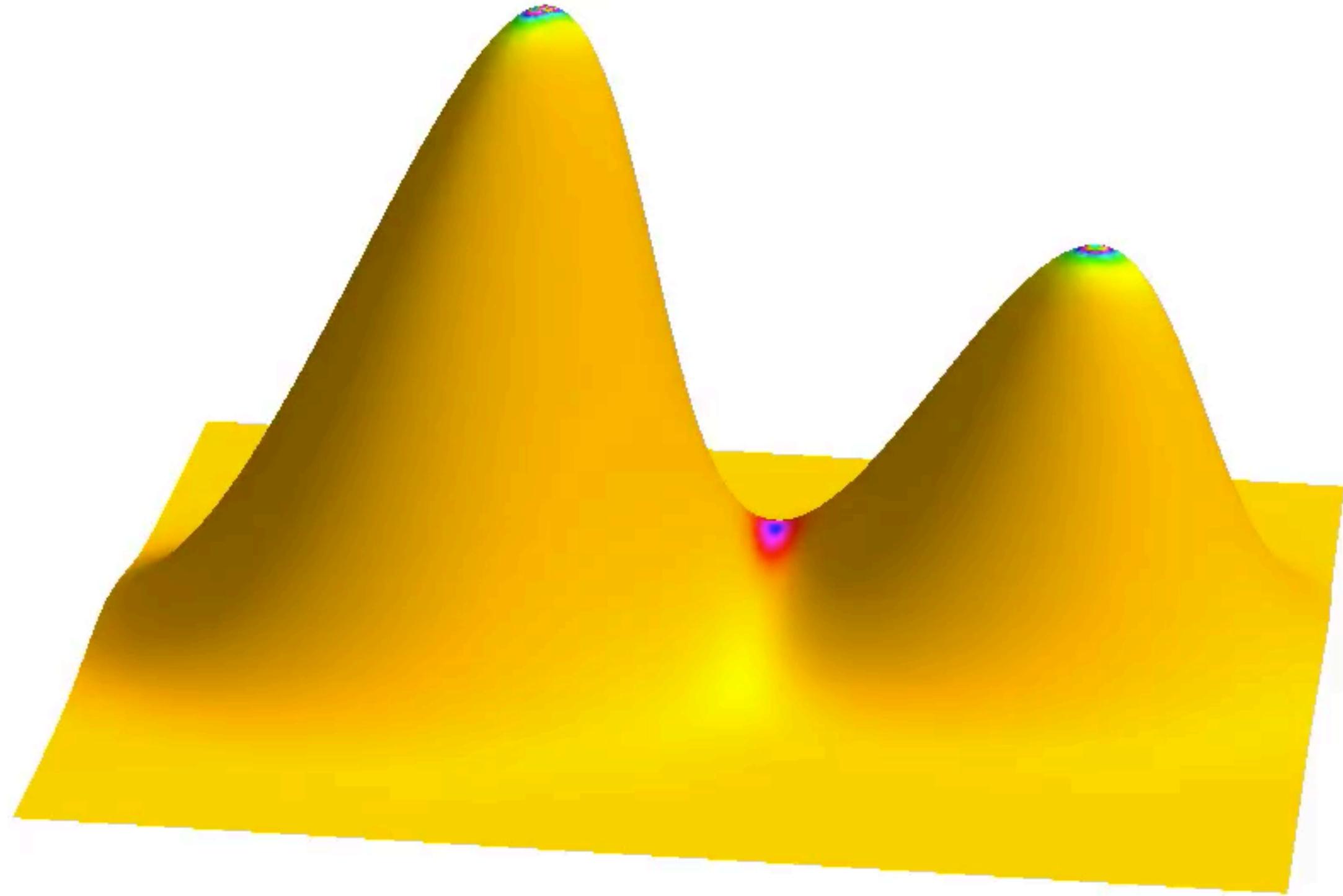
Bernard Bolzano
1781-1848

Island Math



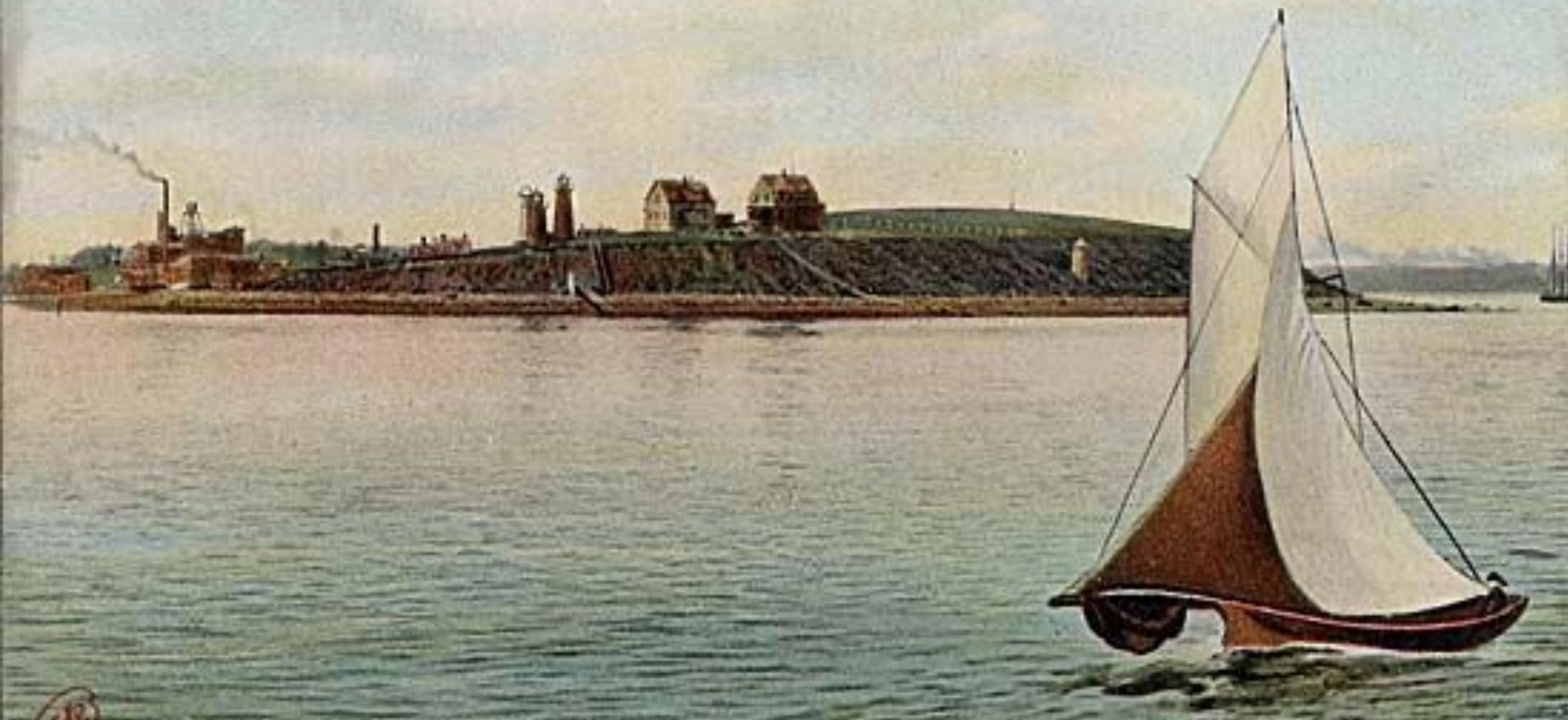
Island Theorem





Spectacle Island

Spectacle Island Range Lights, Boston Harbor.







THE END