

Quick Description of Selected Gradients & Derivatives

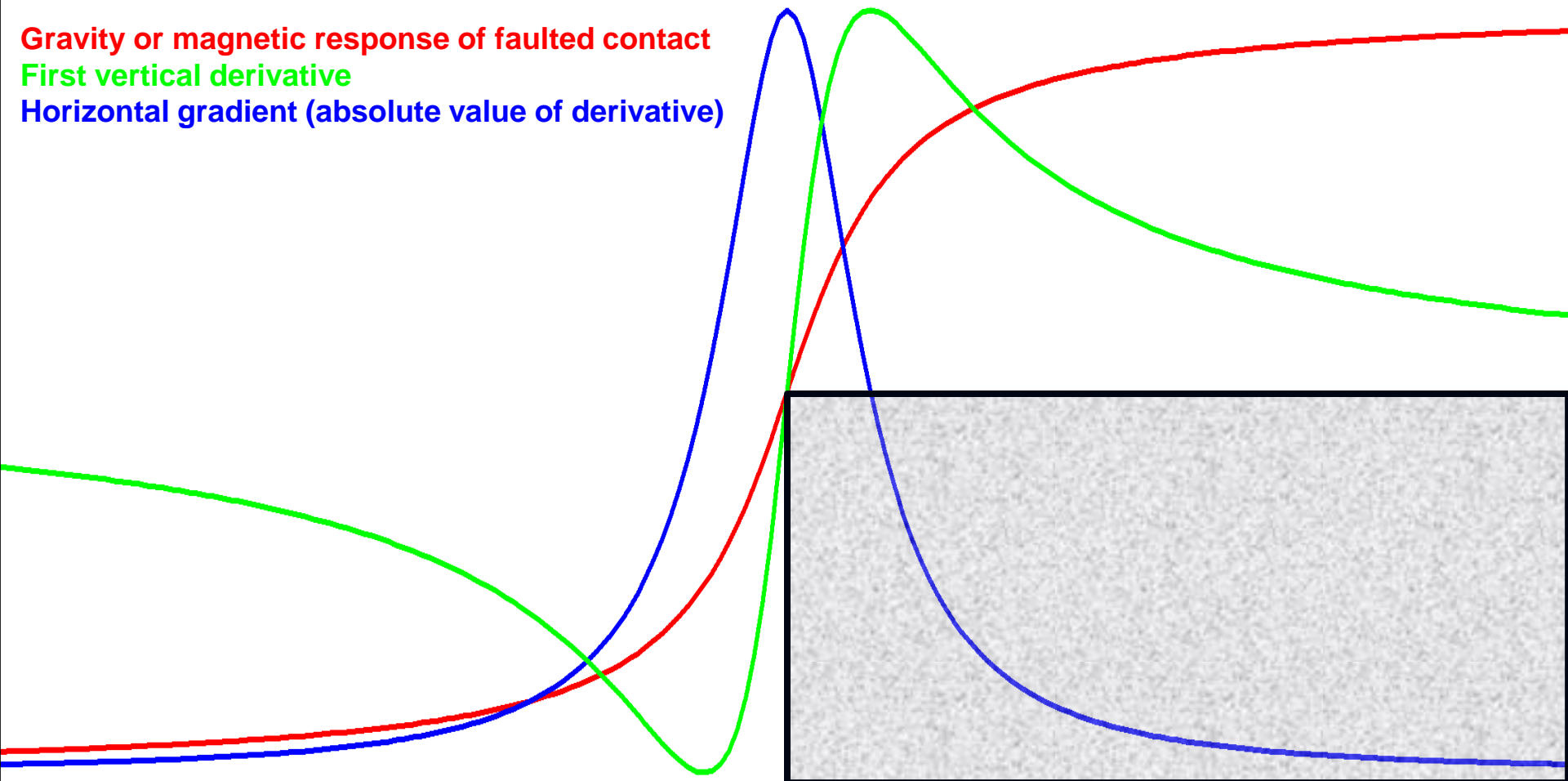
By: John Bain

President

Bain Geophysical Services, Inc.

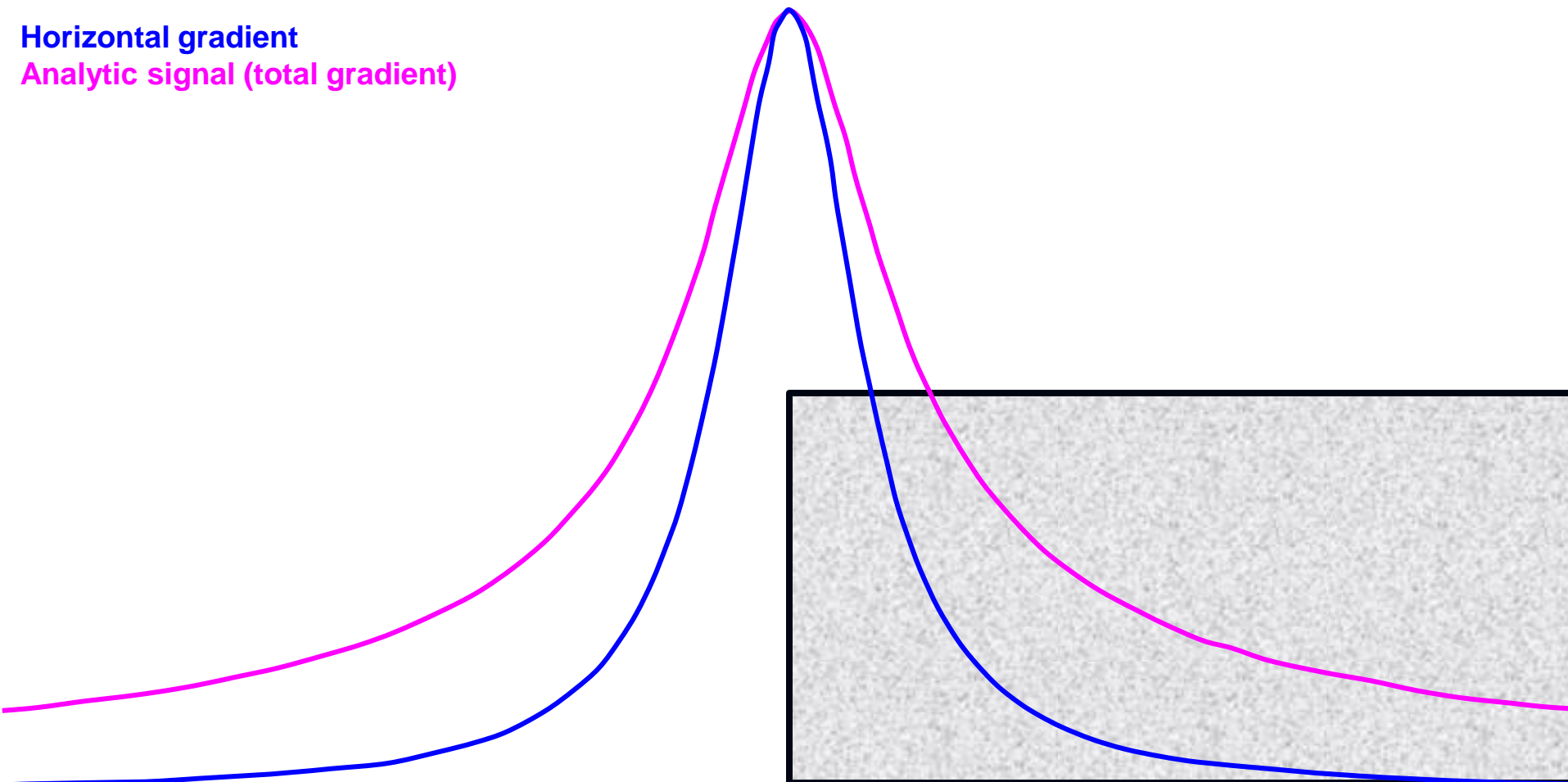
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Gravity or Magnetic (RTP) Anomaly of a Vertical Contact



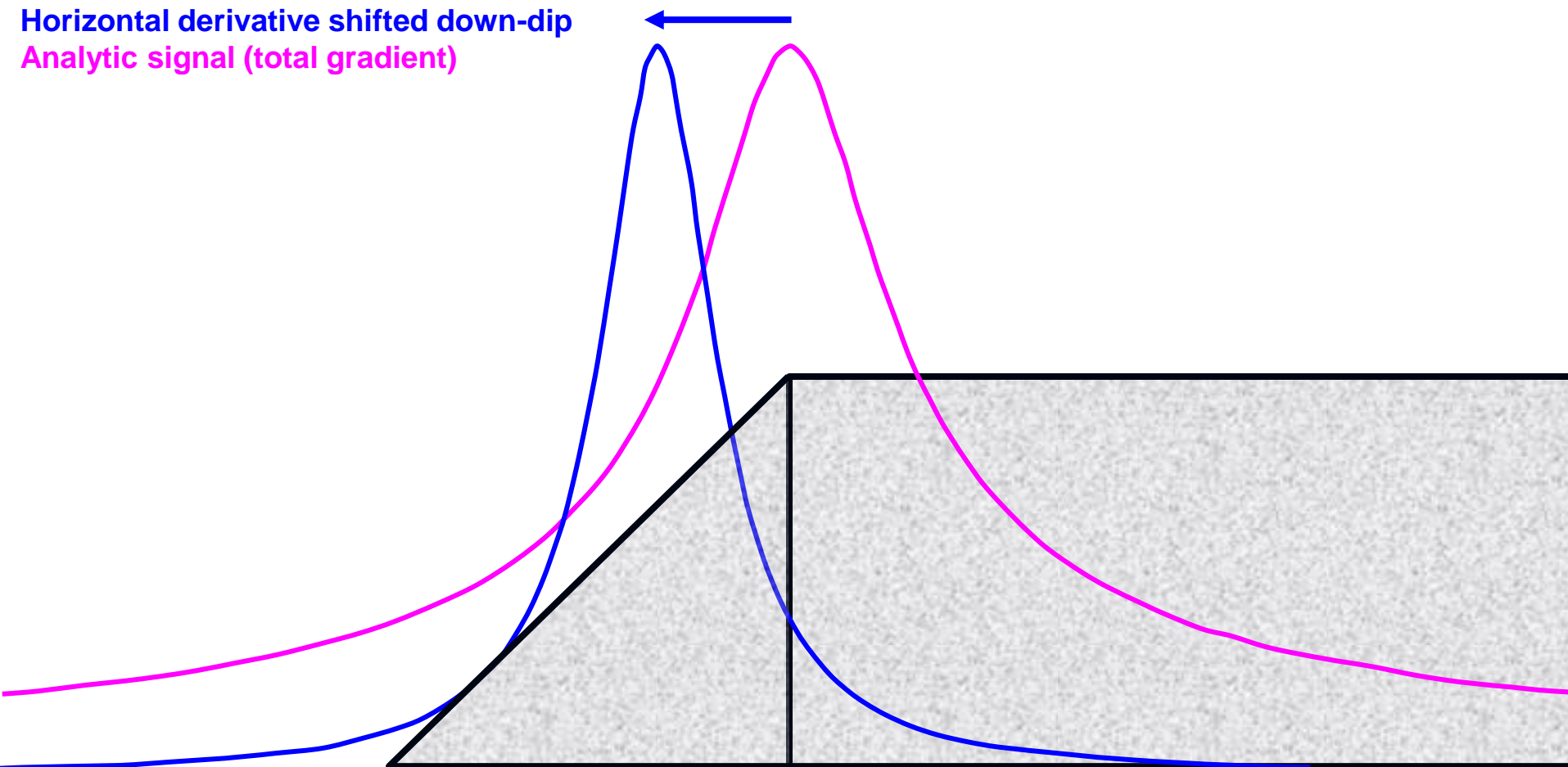
- The red curve above is gravity or RTP computed for a vertical infinite contact (black body)
 - The edge of the vertical body occurs at exactly $\frac{1}{2}$ the total amplitude
- First-vertical derivative has a zero value (inflection point) at the contact location
- Horizontal gradient peak is directly over the vertical contact

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- The analytic signal peak, or total gradient, has similar shape to horizontal gradient, but the peak will be located at the sub-crop of the shallowest fault location

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