

Abstract Submitted
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Ballistics and Biophysics of Fatal Lesion in Thorax SAAMI J. SHAIIBANI, Independent Modeling, Algorithms & Analytical Studies (IMAAS) — The examination of body-related factors does not always provide the level of insight required to resolve the mechanism of death for major chest injury. Indeed, many autopsy findings are limited when environmental information is either not available at all or is incomplete. Such was the case when a gunshot wound was inflicted upon a standing adult male whose torso was rotated by a forward pitch and a rightward yaw. Highly accurate values for these angles were derived by a process independent from any standard medical approach, along with precise measurements for various anatomical landmarks, so that a meticulous analysis could be performed to determine all plausible bullet trajectories. A combination of physics and medicine then allowed only one viable set of conditions to be identified. The interdisciplinary nature of the research described here was responsible for its success; without such a collaborative study, a full understanding of the relevant issues could not have emerged. Physics-based techniques can also be of benefit in many other applications when the appropriate protocol is defined properly and then implemented correctly.

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