

# New Paper on WTC 'Collapses' Adds to Literature Refuting Progressive Collapse Theory

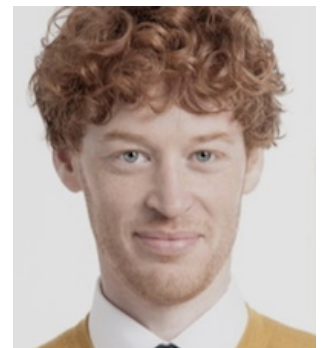
by [Ted Walter, Architects & Engineers for 9/11 Truth](#)

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Few people know that the official account of the Twin Towers' destruction relies entirely on just four journal papers. All four papers were coauthored by Northwestern University engineering professor Zdeněk Bažant, and all four were published in the ASCE's *Journal of Engineering Mechanics* between 2002 and 2011 (Bažant submitted the first paper a mere two days after 9/11). <sup>1 2 3 4</sup>

This may come as a surprise to many people, since one would assume that the government itself fully investigated the Twin Towers' destruction and offered a complete theory explaining these catastrophic building failures. But that assumption is wide of the mark.



As it happens, the National Institute of Standards and Technology (NIST) limited the scope of its investigation to “the sequence of events from the instant of aircraft impact to the initiation of collapse.” Stunningly, NIST admitted that it

conducted “little analysis of the structural behavior of the tower after the conditions for collapse initiation were reached” and that it was “unable to provide a full explanation of the total collapse.”<sup>5 6</sup>

In other words, the government did not explain how the tops of the Twin Towers were able to crush through the enormous steel structures below them “essentially in free fall.”<sup>7</sup> The only analysis ever produced in support of this notion was by Bažant and his various coauthors.

This past September, the most recent paper refuting Bažant’s theory was presented by German mathematician and physicist Ansgar Schneider at the annual congress of the International Association for Bridge and Structural Engineering (IABSE) in New York City. Schneider’s paper, “The Structural Dynamics of the World Trade Center Catastrophe,” can now be found in the [conference proceedings](#) and is also available for free on [arXiv, the e-print server of the Cornell University Library](#).<sup>8</sup>



#### The Structural Dynamics of the World Trade Center Catastrophe

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#### 1. Abstract

Bažant et al. have proposed a model of a gravity-driven collapse of a tall building which collapses in a progressive-floor collapse after the failure of a single storey. The model allows the re-computation of the structural resistance of the building once the downward movement of the building has been quantified. We give a physically more sound version of the collapse model, and determine the downward movement of the North Tower of the World Trade Center. Thereby we reproduce a value for the upward resisting force during the collapse that is similar to what has been achieved by Bažant et al. for the first three seconds of the collapse. However, our method of measurement also includes data up to 9 seconds after collapse initiation. These data show a much bigger upward resistance force between 4 and 7 seconds after collapse initiation.

**Keywords:** World Trade Center, North Tower, Progressive Floor Collapse, Crush-Down Equation, Energy Dissipation, Structural Dynamics, High-Rise Buildings, New York City, Terrorism.

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Complementing earlier research, Schneider's paper offers a new and unique approach to falsifying Bažant's theory. Previous papers showed that Bažant [hugely underestimated the ability](#) of WTC 1's lower section to resist the fall of the upper section and pointed out that [there would have been a large, observable deceleration](#) of the upper section's downward movement – which there was not – if it had impacted the intact lower section. <sup>9</sup>

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Schneider's approach is to assume that Bažant's mathematical model of a progressive collapse is valid. Then, by plugging into the model the actual data related to the fall of the upper section, he calculates the upward resistance provided by the lower section. Perhaps surprisingly, Schneider finds that, from 4.6 seconds until 7.7 seconds into the collapse, the computed upward resistance of the lower section is so great that the collapse would have been arrested if the upward resistance were consistent throughout the vertical length of the building.

Yet Schneider also finds that the upward resistance during the first 4.6 seconds and after 7.7 seconds is almost as low as one-tenth of the possible average upward resistance over the vertical length of the building – specifically, 66 meganewtons versus 500 meganewtons. This finding is consistent with David Chandler's estimate that, based on the upper section accelerating constantly at 64% of free fall for the first four seconds of the collapse, "close to 90% of the strength of the lower section of the building must have been eliminated."<sup>12</sup>



**Evaluation of Etienne Sauret's Video Record:**



Time /sec	Part of roof	Distance to baseline /m	Elevation over concourse level /m
0	top, middle	0.7	417
1.64	top, middle	10.0	408 ± 2
3.20	top, middle	34.8	383 ± 2
4.57	top, middle	68.3	349 ± 4

**Under the assumption of a gravity-driven progressive floor collapse, we conclude that**

- 1) the possible average resistance force of the structure was (at least)  $F_0 = 2000 \text{ MJ/h}$ ;
- 2) the resistance force was one order of magnitude below this possible value during two time intervals.

⇒ The building's structural resistance was reduced by some «unknown phenomenon»!

Schneider thus arrives at the question: What mechanism so dramatically reduced the resistance of the building structure at the beginning and the end of the collapse? The obvious answer, in light of all of the evidence ignored by NIST but known to the public for many years, is that explosives and

incendiaries were used to destroy the structure. Regrettably, Schneider was not allowed to give his presentation at the 2019 IABSE Congress in the format he would have hoped. In August, he was denied entry to the United States because his two previous trips to Iran to teach courses and speak at math conferences made him ineligible for the [Visa Waiver Program](#) available to most Europeans – and then he was denied a normal visa, despite having an invitation from IABSE. Unable to attend the conference in person, Schneider recorded a 15-minute presentation that the organizers kindly played at his session. A revised version of that presentation is available below.

Schneider and AE911Truth are grateful to the many people who donated so that he could register for the 2019 IABSE Congress, which enabled him to present this important paper and have it published in the conference proceedings.

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