# Article information:

Experimental investigation of seismic behavior of UHPC connection between precast columns and footings in bridges - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S0141029621004946>

# Article summary:

1. A new connection between precast bridge column and footing using ultra-high performance concrete (UHPC) is developed.

2. Quasi-static experiments are conducted to investigate the seismic behavior of precast bridge piers with this new UHPC connection.

3. A finite element model is developed to simulate the cyclic response of the precast column with proposed connection.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article “Experimental Investigation of Seismic Behavior of UHPC Connection Between Precast Columns and Footings in Bridges” provides an overview of a new connection between precast bridge columns and footings using ultra-high performance concrete (UHPC). The article presents the results from quasi-static experiments that were conducted to investigate the seismic behavior of precast bridge piers with this new UHPC connection, as well as a finite element model that was developed to simulate the cyclic response of the precast column with proposed connection.

The article appears to be reliable and trustworthy, as it provides detailed information on the research methods used, including descriptions of both experimental tests and numerical simulations. Furthermore, it includes references to relevant literature on similar topics, which adds credibility to its claims. However, there are some potential biases in the article that should be noted. For example, while it does mention other types of connections between precast columns and footings such as bar couplers, grouted ducts, member socket connections, pocket connections, and hybrid connections, it focuses primarily on UHPC connections without providing much detail about these other types or exploring their potential advantages or disadvantages compared to UHPC connections. Additionally, while it does provide evidence for its claims in terms of experimental results and numerical simulations, there is no discussion about possible risks associated with using UHPC connections or any exploration into counterarguments or alternative solutions that could be used instead.

In conclusion, while this article appears to be reliable and trustworthy overall due to its detailed descriptions of research methods used and references to relevant literature on similar topics, there are some potential biases that should be noted such as lack of detail about other types of connections between precast columns and footings or exploration into possible risks associated with using UHPC connections or alternative solutions that could be used instead.

# Topics for further research:

* Bar coupler connections in bridges
* Grouted duct connections in bridges
* Member socket connections in bridges
* Pocket connections in bridges
* Hybrid connections in bridges
* Risks associated with UHPC connections in bridges

# Report location:

<https://www.fullpicture.app/item/aeabcadefff45ff225c69506dda86bc6>