

第 94 回フロンティア材料研究所講演会

*Special lecture on*

## Probable Moment Strength of Reinforced Concrete Columns

**Prof. Mario E. Rodriguez, National University of Mexico, Mexico City**

Time and Date: **16:00—17:30**, January 22th (Tuesday), 2019  
(2019 年 1 月 22 日 火曜日 16:00—17:30)

Place: Meeting Room209, 2F of Building G5  
(G5 棟 2 階, 209 会議室)

### Summary

The probable moment strength (or flexural overstrength, as it is also known) is the theoretical maximum flexural strength that can be calculated for the critical section of a member, with or without axial load, subjected to bending in a given direction. In the ACI 318 of the American Concrete Institute (ACI), this strength is needed to capacity-design beams, columns of special-moment frames, and columns not designated as part of the seismic-resisting system. Supported on a column database, it is shown that the current method prescribed by ACI 318 to calculate this strength has a clear nonconservative bias and the reasons for this are explained. This presentation describes a very simple, statistically calibrated mechanics model for determining the probable moment strength of rectangular and circular columns. The proposed procedure for computing probable moment strength in RC columns could be incorporated into design provisions and it could be used immediately by design professionals.

### Contact:

Prof. Susumu Kono (河野進教授)

045-924-5384

Kono.s.ae@m.titech.ac.jp