

# A next-generation trapped ion quantum computing system

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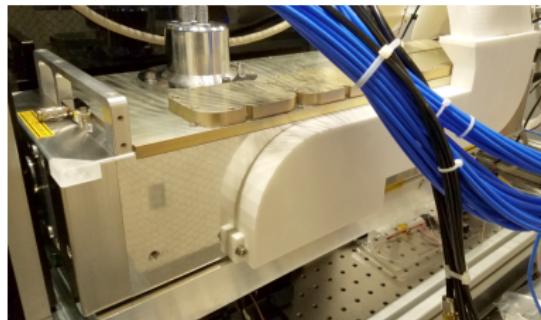
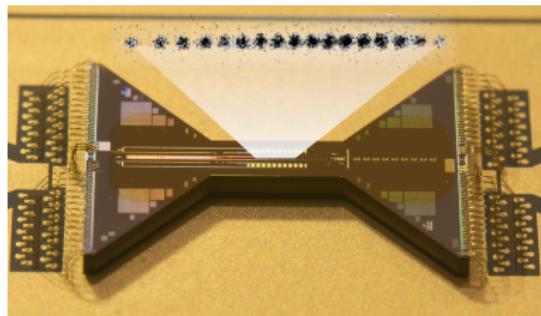
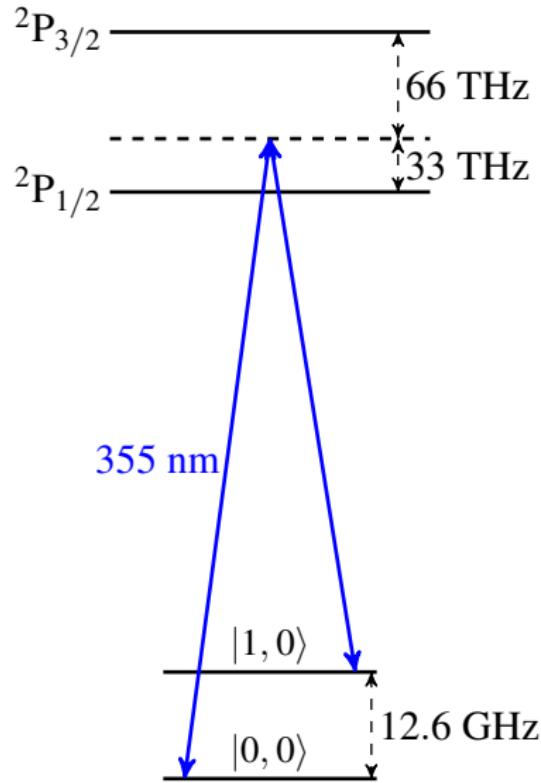
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# $^{171}\text{Yb}^+$ qubit

# $^{171}\text{Yb}^+$ chain and coherent manipulation



# 1<sup>st</sup> generation EURIQA system

## 2<sup>nd</sup> generation EURIQA system

## 2<sup>nd</sup> gen EURIQA: Pheonix trap

## 2<sup>nd</sup> gen EURIQA: Raman geometry

## 2<sup>nd</sup> gen EURIQA: New Yb atom source

## 2<sup>nd</sup> gen EURIQA: Improved vacuum

## 2<sup>nd</sup> gen EURIQA: Raman beam path

## 2<sup>nd</sup> gen EURIQA: CW lasers

# 2<sup>nd</sup> gen EURIQA: status and first ion

