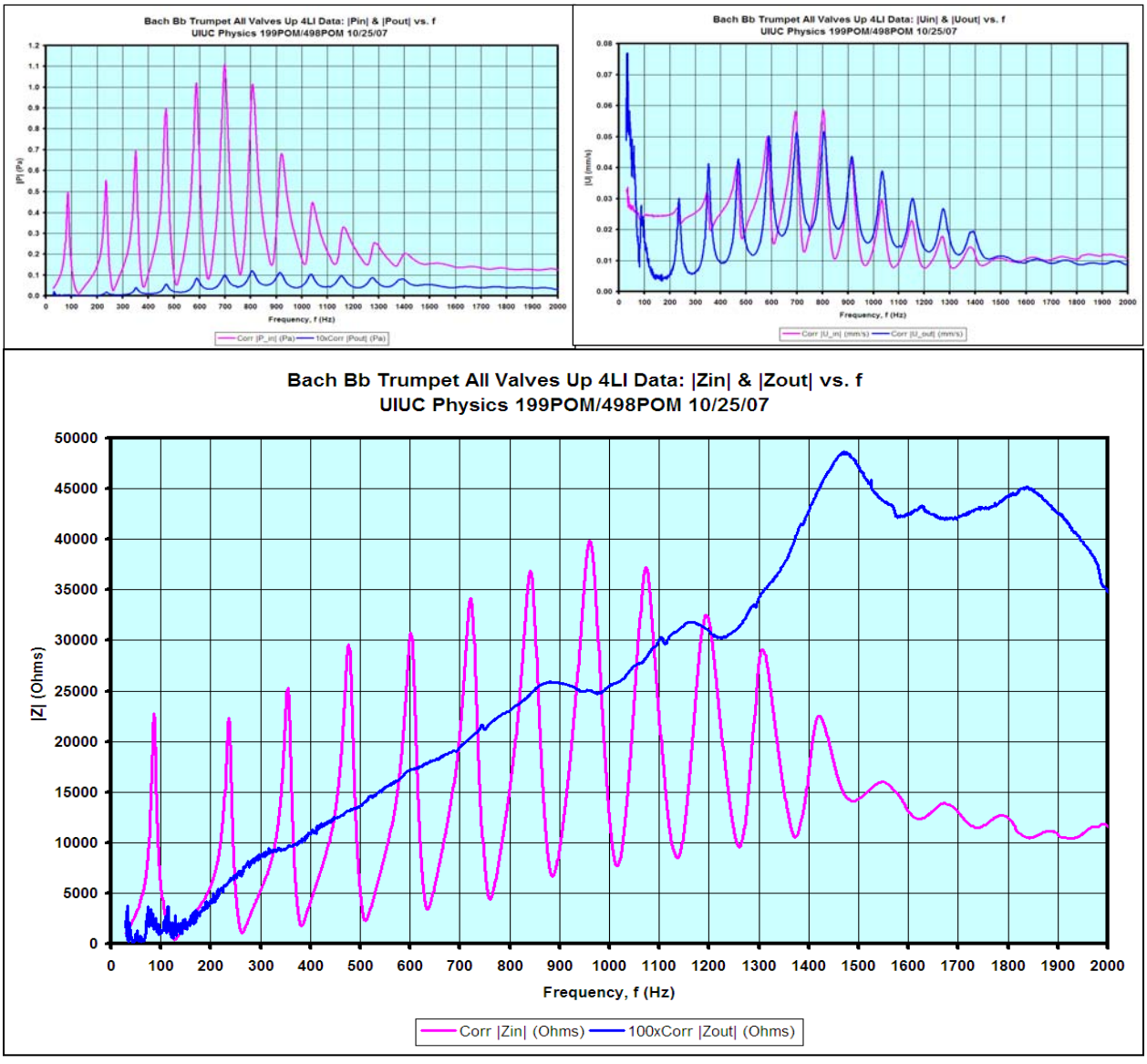
The sensitivities of the *p*- and *u*-mics $S_{p\text{-}mic}$ and $S_{u\text{-}mic}$ are measured/absolutely calibrated in an *SPL* = 94 *dB* free-field sound field, frequency-dependent *p*- and *u*-mic phase corrections are also applied to the raw complex *p*- and *u*-mic data taken for such musical instrument measurements. The complex z_{in} and z_{out} are computed, along with complex I_{in} and I_{out}, resulting in more than 40 individual plots of the real, imaginary, magnitude, phase, cosine of the phase, complex plane associated with complex input/output pressure, complex particle velocity, complex longitudinal specific acoustic impedance and complex longitudinal acoustic intensity.

In the figures below, we show a few of these plots – absolutely calibrated, fully-corrected input (pink) output (blue) $\left|\tilde{p}(f)\right|$, $\left|\tilde{u}_{\parallel}(f)\right|$ and $\left|\tilde{z}_{\parallel}(f)\right|$ data for the Bach B$_b$ trumpet:



The (pink) input impedance peaks enable a player to play those notes on the trumpet. The lowest ***playable*** note is actually the 2nd peak – the output impedance on the 1st peak is a dead short!

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