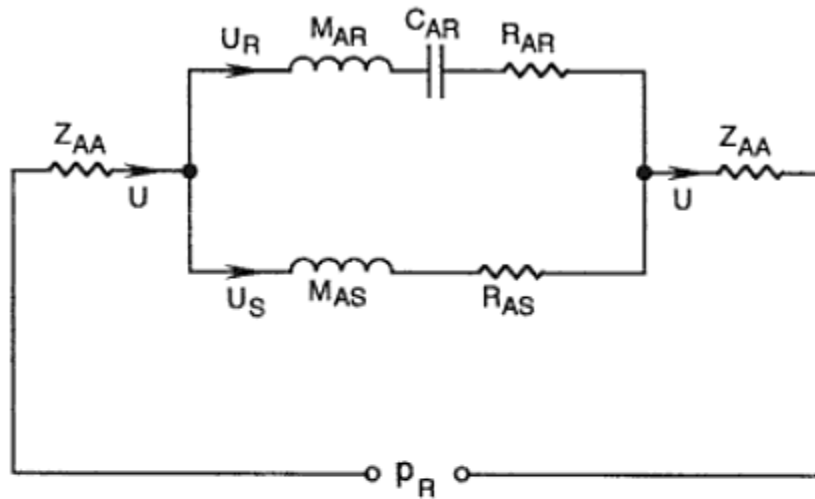


Acoustical circuit (impedance analogy)



Where:

- Z_{AA} = acoustical impedance of medium on one side of diaphragm
- U = volume velocity through microphone
- U_R = volume velocity of ribbon
- U_S = volume velocity of air through slits at edges of ribbon
- M_{AR} = acoustic mass of ribbon
- C_{AR} = acoustic compliance of ribbon
- R_{AR} = acoustic resistance of ribbon
- M_{AS} = acoustic mass of slots
- R_{AS} = acoustic resistance of slots
- p_R = pressure gradient at ribbon

Much information on how microphones work, equivalent circuit modeling of microphones, *etc.* is discussed in [The Microphone Handbook](#), 2nd Ed. by John Eargle, Elsevier, 2004.