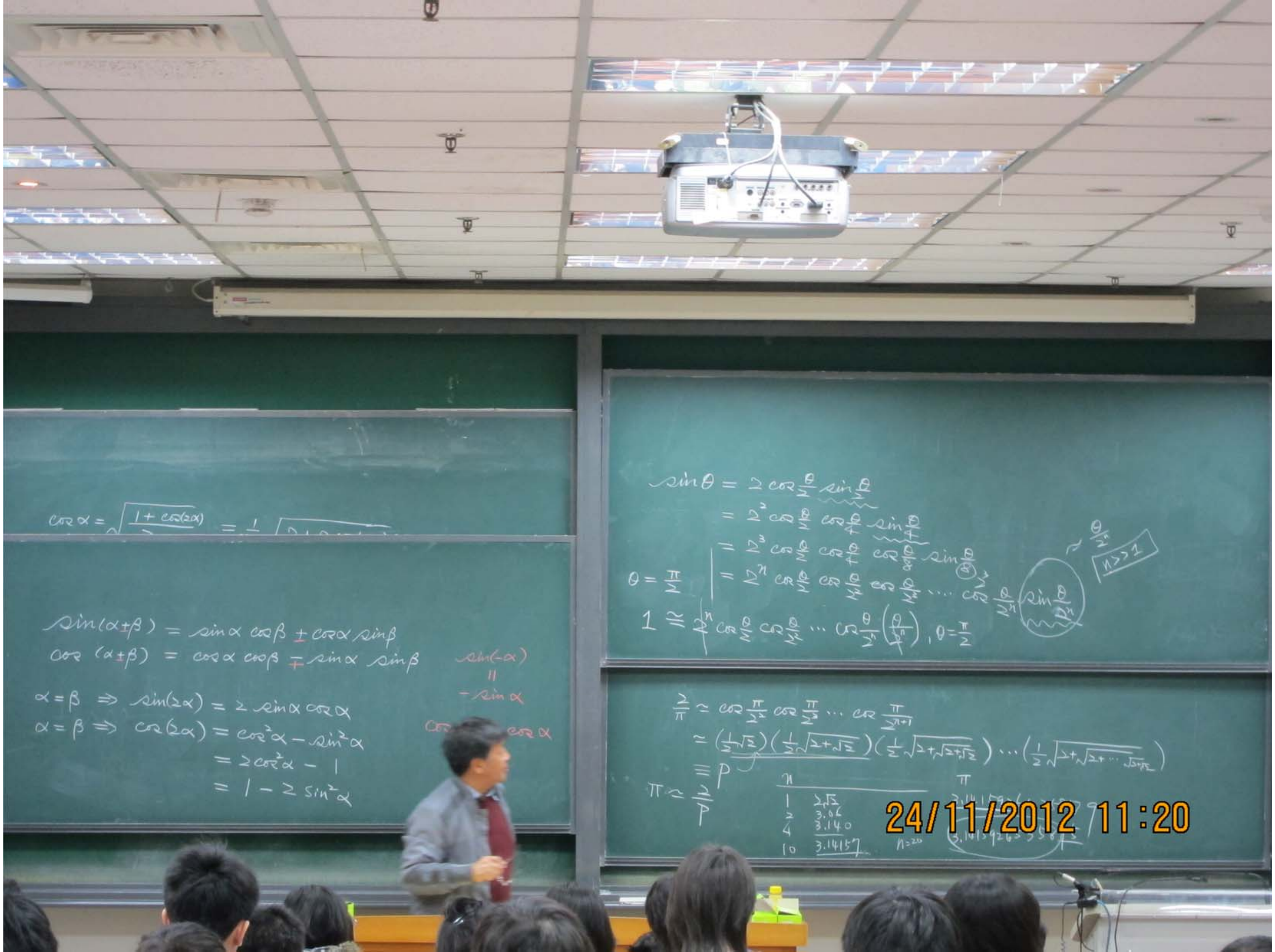
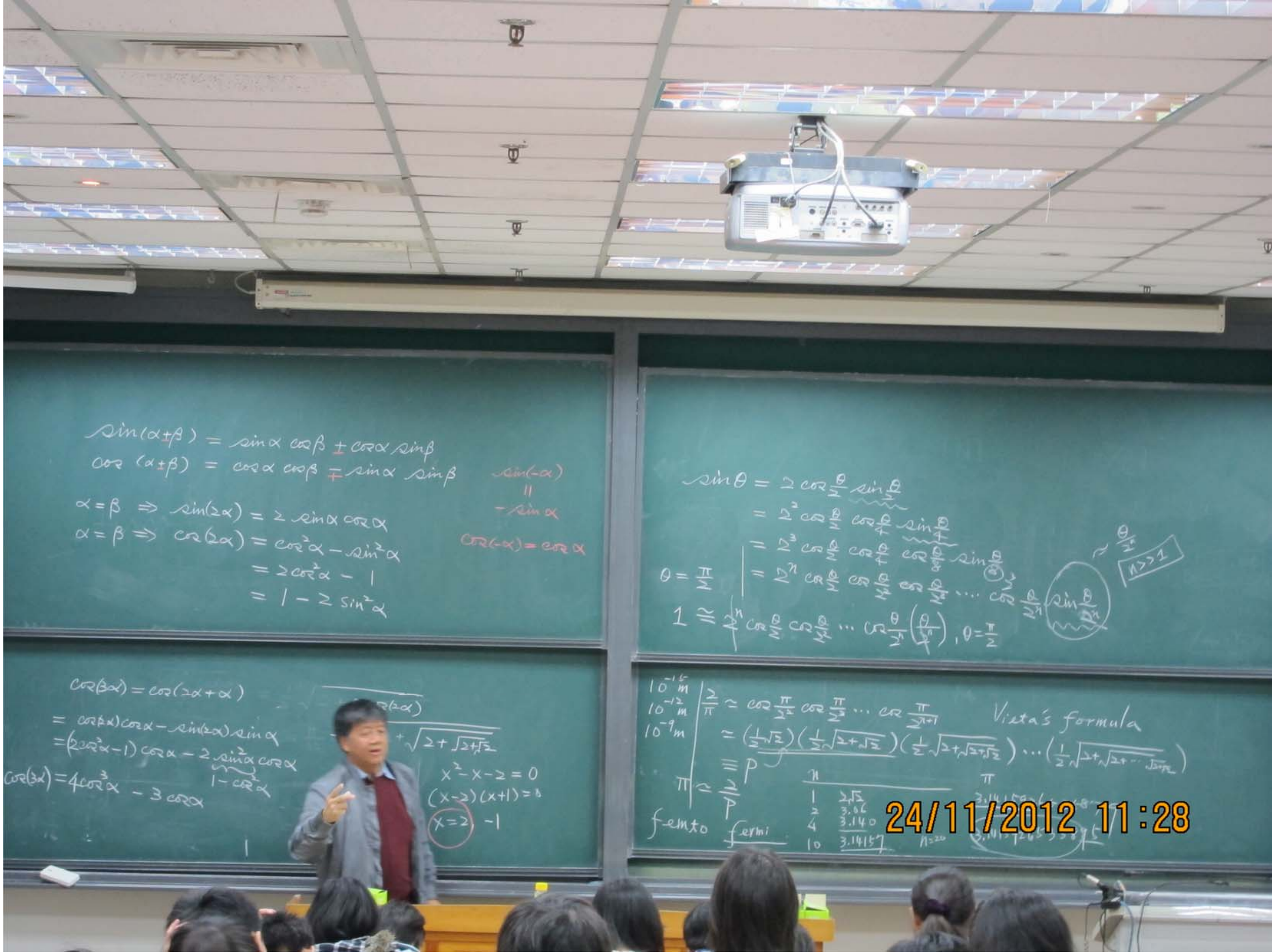
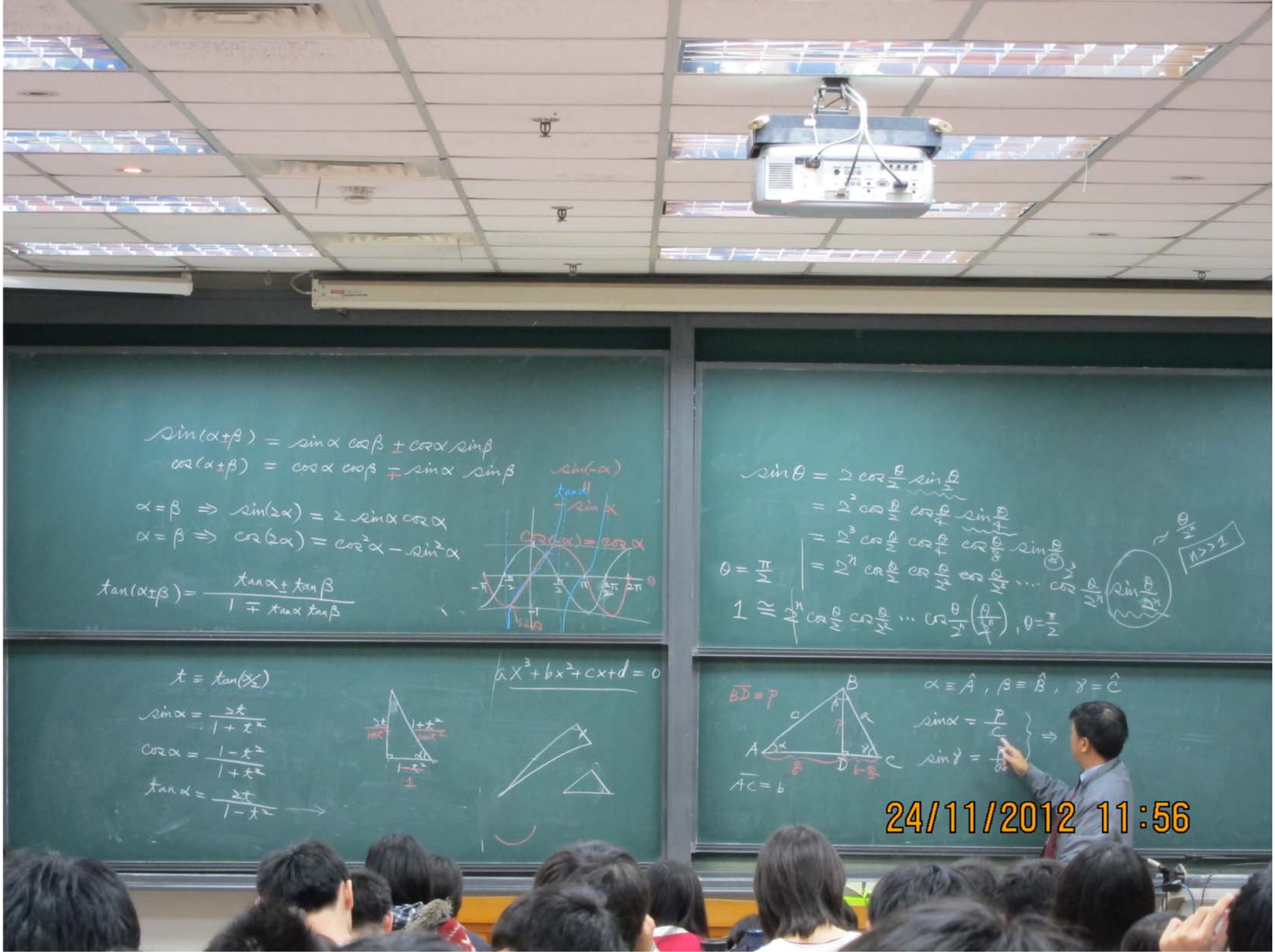
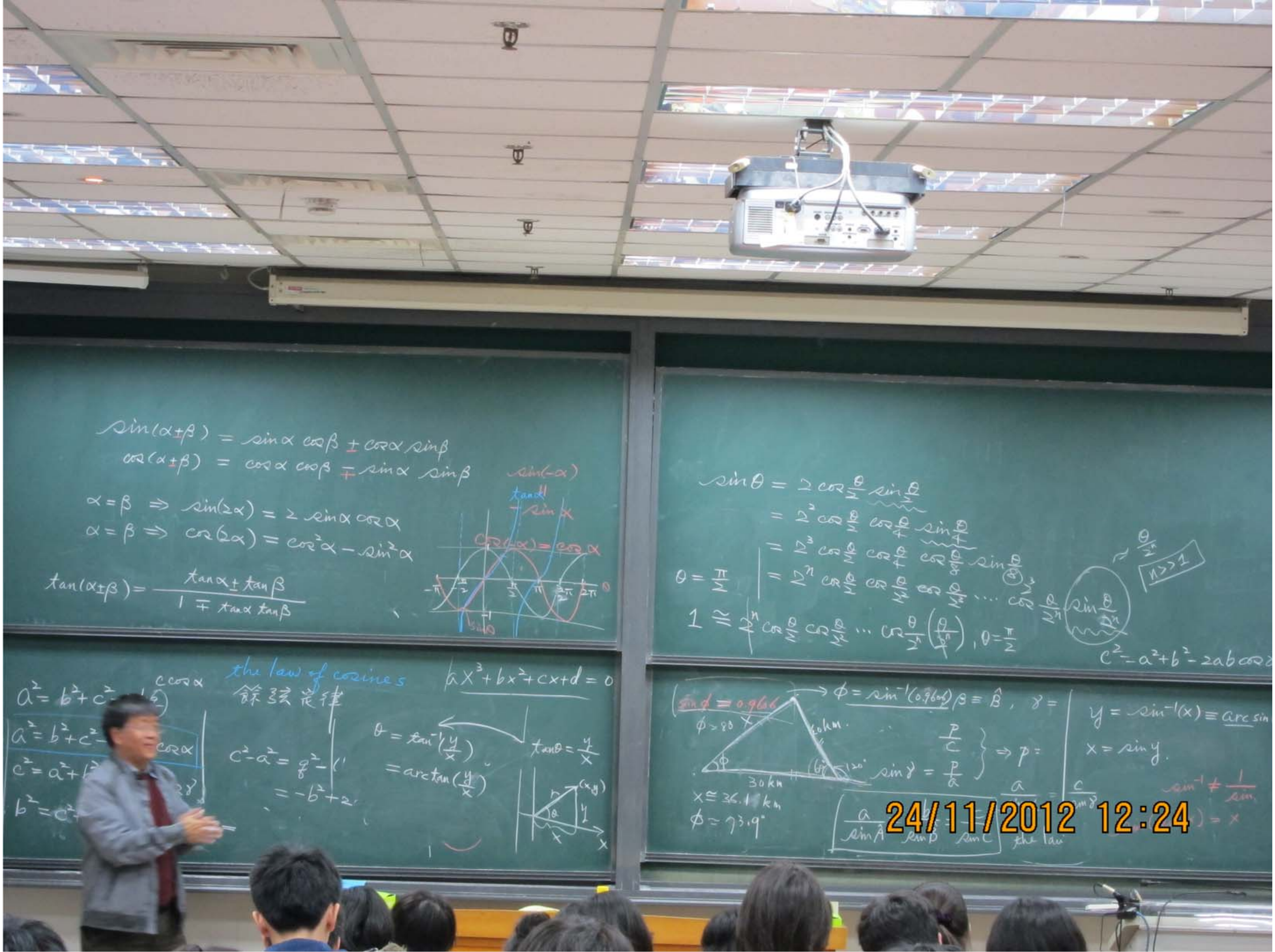


sin(α±β) = sinα cosβ ± cosα sinβ
cos (α±β) = cosα cosβ ∓ sinα sinβ
α=β ⇒ sin(2α) = 2 sinα cosα
α=β ⇒ cos(2α) = cos²α − sin²α
= 2cos²α − 1
= 1 − 2 sin²α
sin(−α) = −sin α
sinθ = 2 cos θ/2 sin θ/2
= 2² cos θ/2 cos θ/4 sin θ/4
= 2³ cos θ/2 cos θ/4 cos θ/8 sin θ/8
θ = π/2
= 2ⁿ cos θ/2 cos θ/2² cos θ/2³ ⋯ cos θ/2ⁿ sin θ/2ⁿ
n>>1
1 ≅ 2ⁿ cos θ/2 cos θ/2² ⋯ cos θ/2ⁿ (θ/2ⁿ), θ = π/2
2/π ≃ cos π/2² cos π/2³ ⋯ cos π/2ⁿ⁺¹
≃ (½√2)(½√(2+√2))(½√(2+√(2+√2)))⋯
≡ P
π ≃ 2/P
n π
1 2√2
2 3.06
4 3.140
10 3.14157
24/11/2012 11:20


sin(α±β) = sinα cosβ ± cosα sinβ
cos(α±β) = cosα cosβ ∓ sinα sinβ
α=β ⇒ sin(2α) = 2 sinα cosα
α=β ⇒ cos(2α) = cos²α − sin²α
= 2cos²α − 1
= 1 − 2 sin²α
sin(−α) = −sinα
cos(−α) = cos α
cos(3α) = cos(2α+α)
= cos(2α)cosα − sin(2α)sinα
cos(3α) = 4cos³α − 3cosα
x²−x−2=0
(x−2)(x+1)=0
x=2
−1
sinθ = 2 cos θ/2 sin θ/2
n>>1
θ=π/2
Vieta's formula
10⁻¹⁵m
10⁻¹²m
10⁻⁹m
≡ P
π ≃ 2/P
femto
fermi
n
π
1
2√2
2
3.06
4
3.140
10
3.14157
24/11/2012 11:28


sin(α±β) = sinα cosβ ± cosα sinβ
cos(α±β) = cosα cosβ ∓ sinα sinβ
α=β ⇒ sin(2α) = 2 sinα cosα
α=β ⇒ cos(2α) = cos²α − sin²α
tan(α±β) = (tanα ± tanβ) / (1 ∓ tanα tanβ)
sinθ = 2 cos θ/2 sin θ/2
t ≡ tan(α/2)
sinα = 2t / (1+t²)
cosα = (1−t²) / (1+t²)
tanα = 2t / (1−t²)
aX³+bx²+cx+d=0
α ≡ Â , β ≡ B̂ , γ ≡ Ĉ
BD ≡ P
AC = b
24/11/2012 11:56



sin(α±β) = sinα cosβ ± cosα sinβ
cos(α±β) = cosα cosβ ∓ sinα sinβ
α=β ⇒ sin(2α) = 2 sinα cosα
α=β ⇒ cos(2α) = cos²α − sin²α
tan(α±β) = (tanα ± tanβ) / (1 ∓ tanα tanβ)
the law of cosines
餘弦定律
ax³+bx²+cx+d = 0
θ = tan⁻¹(y/x)
= arctan(y/x)
tanθ = y/x
y = sin⁻¹(x) ≡ arc sin
x = sin y
24/11/2012 12:24