

Android 颜色计算

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原文链接: <https://ld246.com/article/1542093955530>

来源网站: [链滴](#)

许可协议: [署名-相同方式共享 4.0 国际 \(CC BY-SA 4.0\)](#)

```

/**
 * 合并颜色，支持argb8888
 * @param fg 前景色
 * @param bg 背景色
 */
public static int blendColor(int fg, int bg) {
    int scr = Color.red(fg);
    int scg = Color.green(fg);
    int scb = Color.blue(fg);
    int sa = fg >>> 24;
    int dcr = Color.red(bg);
    int dcg = Color.green(bg);
    int dcbl = Color.blue(bg);
    int color_r = dcr * (0xff - sa) / 0xff + scr * sa / 0xff;
    int color_g = dcg * (0xff - sa) / 0xff + scg * sa / 0xff;
    int color_b = dcbl * (0xff - sa) / 0xff + scb * sa / 0xff;
    return ((color_r << 16) + (color_g << 8) + color_b) | (0xff000000);
}

/** Calculates the contrast between two colors, using the algorithm provided by the WCAG v
 */
public static float computeContrastBetweenColors(int bg, int fg) {
    float bgR = Color.red(bg) / 255f;
    float bgG = Color.green(bg) / 255f;
    float bgB = Color.blue(bg) / 255f;
    bgR = (bgR < 0.03928f) ? bgR / 12.92f : (float) Math.pow((bgR + 0.055f) / 1.055f, 2.4f);
    bgG = (bgG < 0.03928f) ? bgG / 12.92f : (float) Math.pow((bgG + 0.055f) / 1.055f, 2.4f);
    bgB = (bgB < 0.03928f) ? bgB / 12.92f : (float) Math.pow((bgB + 0.055f) / 1.055f, 2.4f);
    float bgL = 0.2126f * bgR + 0.7152f * bgG + 0.0722f * bgB;

    float fgR = Color.red(fg) / 255f;
    float fgG = Color.green(fg) / 255f;
    float fgB = Color.blue(fg) / 255f;
    fgR = (fgR < 0.03928f) ? fgR / 12.92f : (float) Math.pow((fgR + 0.055f) / 1.055f, 2.4f);
    fgG = (fgG < 0.03928f) ? fgG / 12.92f : (float) Math.pow((fgG + 0.055f) / 1.055f, 2.4f);
    fgB = (fgB < 0.03928f) ? fgB / 12.92f : (float) Math.pow((fgB + 0.055f) / 1.055f, 2.4f);
    float fgL = 0.2126f * fgR + 0.7152f * fgG + 0.0722f * fgB;

    return Math.abs((fgL + 0.05f) / (bgL + 0.05f));
}

```

```
//判断是否是深色  
isDark = computeContrastBetweenColors(color,Color.WHITE) > 3f;
```